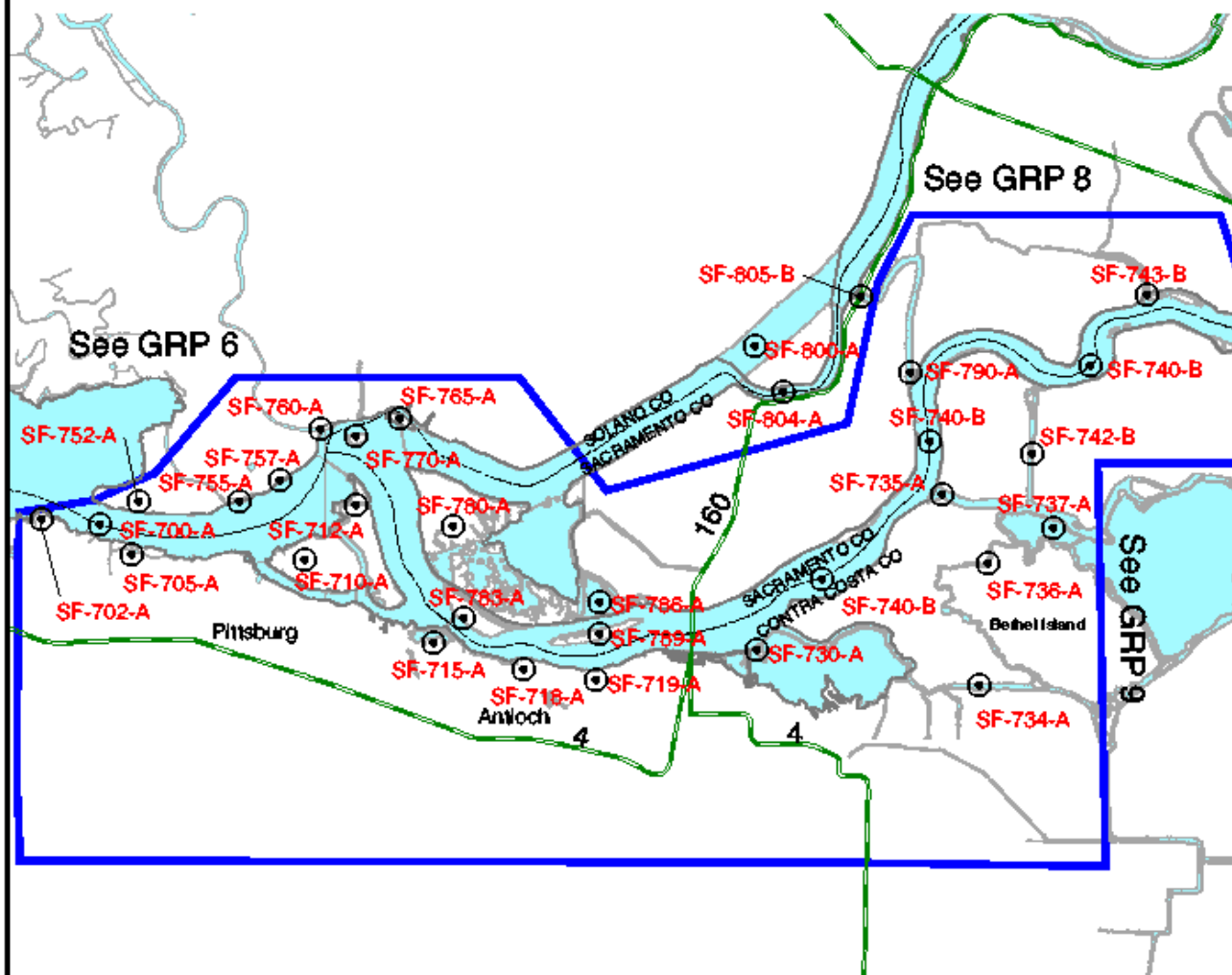
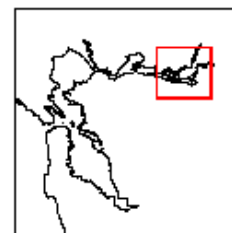




# SF Geographic Response Area 7 West Delta - Pittsburg to Old River Environmentally Sensitive Sites



0 5 10 Miles



Note: Marker symbols (⊙) are only site reference and do not indicate full extent of sites.

# Geographic Response Area 7 -

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## GRP 7 Site Index/Response Actions

Site ID	Priority	Site Description	Assignment	Date/Time Required	Date/Time Completed
SF-700		Entrapment Zone			
SF-702		Stake Point Marshes			
SF-705		Mallard Island			
SF-710		Brown's Island			
SF-712		Winter Island			
SF-715		Pittsburg-Antioch Marsh			
SF-718		Antioch Dunes National Wildlife Refuge			
SF-719		Antioch Dunes and Quarry Canyon			
SF-730		Big Break Complex			
SF-734		Dutch Slough East			
SF-735		False River West			
SF-736		Taylor Slough and West Piper Slough			
SF-737		Little Franks Tract			
SF-740		San Joaquin R: Sherman-Webb Reach			
SF-742		Fishermans Cut			
SF-743		Sevenmile Slough			
SF-752		Chippis Island, Southern Side			
SF-755		Spoonbill Creek			
SF-757		Van Sickle Island			
SF-760		Montezuma Slough - East Mouth			
SF-765		Montezuma Island and Collinsville			
SF-770		Chain Island			
SF-780		Lower Sherman Isl-Sherman Lake			
SF-783		Kimball Island - Cabin Slough			
SF-786		Mayberry Slough - Donlon Island			
SF-789		West Island			
SF-790		Threemile Slough East			

# ACP Sensitive Site Resource List - GRP 7

SITE	SUB	SITENAME SO	Strategy Objective	HBOOM	SWBM	XBOOM	SORB	BBoat/f	# / Type	Skim	SPECEQUIP	Deploy Personnel
2-700	. 1	Entrapment Zone									TSA & SPS	
		3	minimize the oil on the surface of the bay.									
2-702	. 1	Stake Point Marshes		2000			600	3/2				13 PERSONS
		5	Keep oil out of extensive inner channels and marshes by exclusion booming of six openings.									
	. 2	Stake Point Marshes		10000				4/2				25 WATER/ 5 LAND
		8	Protect bayfront emergent marsh margin from oil penetration using protective boom.									
2-705	. 1	Mallard Island		2200			400	3/2				14 PERSON
		5	Exclude oil from entering inner sloughs using exclusion booming of slough mouths.									
	. 2	Mallard Island		300			100	1/1	1	portable & VT		2 PERSON
		6	If oil is threatening from the east, set up a capture site to intercept the oil as well as implement the above strategy.									
	. 3	Mallard Island		3200				3/2				15 WATER/ 5 LAND
		8	Protect emergent marsh frontage on Suisun Bay side of Mallard Island by deploying one or more layers of protection boom.									
2-710	. 1	Brown's Island		2400	2000		1000	4/2	1	SPS		12 persons
		5	Exclusion Booming if oil is moving from east or south side toward site: Deploy exclusion booming at Middle Slough, small openings and channels, and marshy									
	. 2	Brown's Island		600	2000		500	2/2	1	SPS	Bboat: very shallow draft	10
		5	Exclusion Booming: if oil is moving from west toward site: Deploy exclusion booming from Pt. Emmet to the creek mouth on the northwest shore of Brown's Island, and									
2-712	. 1	Winter Island		6000				6/4				26 WATER/ 5 LAND
		7,8	Protect Pt. San Joaquin Marsh and Mudflats from oil threats from the west using an extend exclusion-deflection chevron to fend pas									
	. 2	Winter Island		700				1/3			Bboat: shallow draft	9
		5	For oil threats from east exclude oil entry to north cross channel and easterly barrow channel with small boom segments.									
2-715	. 1	Pittsburg-Antioch Marsh (Dow Wetlands)		900	350		800	2/1			Bboat: 1 very shallow	8
		5	Exclude oil from entering the marshes: booming levee breeches at Antioch Pt. & and small openings, mouth of Contra Costa Canal, Dowest Slough, & unnamed slough.									
	. 2	Pittsburg-Antioch Marsh (Dow Wetlands)		1000				2/1				8
		7	Flood tide: deflect oil away from sensitive areas.									
	. 3	Pittsburg-Antioch Marsh (Dow Wetlands)		600				1/0				3
		7	Ebb tide: deflect oil away from sensitive areas.									
	. 4	Pittsburg-Antioch Marsh (Dow Wetlands)		800				1/1				5
		8	Protective booming of shoreline of marsh to the east of Antioch Marina.									
2-718	. 1	Antioch Dunes National Wildlife Refuge										
		3	Avoid oiling by on-water interception of oil using mobile skimmers and towed skimming arrays.									
	. 2	Antioch Dunes National Wildlife Refuge		100				0/1				2
		5	Deflect oil away from this shoreline									
	. 3	Antioch Dunes National Wildlife Refuge		100	50			0/1	1	shallow & VT		2
		5	If heavy amounts of oil are moving along shore, deploy nearshore containment just outside the site.									
2-719	. 1	Antioch Dunes and Quarry Canyon		100	50			0/1	1	shallow & VT		2
		5	If heavy amounts of oil are moving along shore, deploy nearshore containment just outside the site.									
2-730	. 1	Big Break Complex		4800			200	4/4			Bboat: very shallow draft	20 WATER / 5 LAND
		5	Exclude oil from entering open waters of Dutch Slough, Big Break and west flooded area by exclusion/diversion boom openings.									
	. 2	Big Break Complex		2500				4/2				14 WATER/5 LAND
		7	On ebb: Deflect oil away from entrance to Dutch Slough and Big Break into main channel to deter oil from entering.									
	. 3	Big Break Complex		3600				2/8			Bboat: very shallow draft	22 WATER, 4 LAND
		8	Protective booming of marsh front: west side marshes									
	. 4	Big Break Complex		2500				4/2				14
		7	Deflection On Flood: deflection to past site and keep it in the main channel									
2-734	. 1	Dutch Slough east		1500				1/1		SPS		3 SKIMMER, 4 SKIFFS
		5	For product originating within this site, recover and/or stop movement of oil as close to source as possible.									
	. 2	Dutch Slough east		600				1/0	1	portable & VT		5
		5,6	For oil threats from Big Break side, deploy multiply collection/exclusion booming to collect at Jersey Isl land skimming sites.									
	. 3	Dutch Slough east		700				1/1				5 PERSON
		5	If oil is threatening from Sand Mound Slough, boom off mouth to exclude.									
2-735	. 1	False River		3400				4/4	1	portable & VTextra anchor line.		20 WATER/4 LAND
		5,7	Deter oil from entering False River from the San Joaquin using deflection/exclusion booming at the mouth.									
	. 2	False River		3000				4/2	2	portable & VT1000' anchor lines		10 WATER / 4 LAND
		5,6	Intercept oil which has entered False River using exclusion-collection booming and free skimming.									
2-736	. 1	Taylor Slough and west Piper Slough		400				0/1	1	portable "&		3 PERSON
		5	For local spills, halt oil movement at the source and recover as close to source as possible. Prevent further spread in slough.									
	. 2	Taylor Slough and west Piper Slough		1300				1/1				5 PERSON
		5	If oil threat is from False River, exclusion boom mouth of Taylor, but only if False River deployments fully supplied.									
2-737	. 1	Little Franks Tract		1000				2/1	1	portable & VT		8 ON WATER
		6,7	If upstream strategies fail, position deflection-collection boom to strand oil on Webb tract shore for skimming.									
2-740	. 1	San Joaquin River - Sherman/Webb Reach		14500			4000			4/8		30 WATER/6 SUPPORT
		5	Prevent oil from entering side channels and sloughs. Prevent oiling of vegetated islands.									
	. 2	San Joaquin River - Sherman/Webb Reach		2000				1/1	4	portable & VT		6 PERSON
		6	Strand and collect oil at windfall locations along shore to reduce degree of spread and oiling.									
2-742	. 1	Fishermans Cut		2000				3/2				15 PERSON
		5	Prevent oil from entering from San Joaquin and protect berm islands.									
	. 2	Fishermans Cut		750				1/1	1	portable & VT		5 WATER/ 1 LAND
		6,5	If oil enters the Cut from either end, intercept, collect and skim - do not allow escape to Frank's Tract.									
2-743	. 1	Sevenmile Slough		3600				2/2			Bboat: very shallow draft	11 WATER/3 LAND
		5	Exclude oil from moving into protected channels inside channel islands which front the slough mouth and protect the islands also.									
	. 2	Sevenmile Slough		1200				1/1	2	portable & VT		5 PERSON
		6	If substantial oil patches are threatening the Andrus or Twitchell Island shoreline, deploy collection and deflection booming.									
2-752	. 1	Chips Island, Southern Side		1000				2/4			Bboat: shallow draft	14 PERSONNEL
		5	Exclude oil from entering inner channels and marshes by exclusion booming of the openings of the outer levee.									
	. 2	Chips Island, Southern Side		3100				3/3			Bboats: shallow draft	15 PERSON
		5,8	Protect emergent marsh at east tip and pocket cove near west tip against oil penetration									
2-755	. 1	Spoonbill Creek		3000'				5/1				11
		5	Exclude oil from entering the southern end of Spoonbill Creek by deploying deflection boom in the Sacramento-San Joaquin River channel just south of the creek mouth.									
	. 2	Spoonbill Creek		1500'			500'	2/1				6
		56	If oil is expected to enter Spoonbill Creek deploy collection boom in the creek to intercept and collect oil moving north toward Honker Bay.									
	. 3	Spoonbill Creek		1000'			500'	2/1	1	self		
		56	An alternative to the previous collection strategy is to collect oil entering Spoonbill Creek with a vessel mounted skimming system.									
2-757	. 1	Van Sickle Island		3500				2/1				16
		5	Exclude oil from small sloughs and from slough behind berm island at mouth and deploy protective boom to along emergent marshes.									
2-760	. 1	Montezuma Slough - East Mouth									contact DWR	
		5	Stop oil entrainment into slough by stopping through current.									
	. 2	Montezuma Slough - East Mouth		3000				3/2				13
		5	Exclude oil from entering mouth by configuring exclusion boom to fend oil away from mouth as to exclude.									
	. 3	Montezuma Slough - East Mouth		500			500	1/1				5 PERSON
		5,6	Backup strategy to above exclusion if oil circumvents exclusion.									
2-765	. 1	Montezuma Island and Collinsville		2000				4/2			extra line	14 PERSON
		7	At the east end of Montezuma Island, deflect oil away from mouth and exclude it from entry to north side of channel.									
	. 2	Montezuma Island and Collinsville		1500				3/2				13 PERSONS
		7	At the west end of Montezuma Island, deflect oil away from shoreline and close north side channel mouth.									

SITE	SUB	SITENAME	HBOOM SO	SWBM	XBOOM SORB Strategy Objective	BBoat/f # / Type	SKIM	SPECEQUIP	Deploy Personnel skiff
2-770	. 1	Chain Island 7	6000	4500		6/5		Bboats: very shallow draft	28 PERSON
		Fend oil away from the emergent marshes at each end and away from the Island.							
2-780	. 1	Lower Sherman Island - Sherman Lake Complex	300	1500		2/1			8 PERSON
		5						Exclusion booming outside and collection booming inside.	
	. 2	Lower Sherman Island - Sherman Lake Complex	3800			4/4		Bboat: very Shallow draft	20 WATER/ 5 LAND
		5						On the Sacramento River opening to Sherman Lake, deflect oil away and block entry.	
2-783	. 1	Kimball Island - Cabin Slough	1500		500	3/3		Bboats: very shallow draft	15
		5						Exclude oil entry at westerly end of Cabin Slough - wind chop is a problem here.	
	. 2	Kimball Island - Cabin Slough	6000			6/6			30
		7,8						Protect marsh at west end of Kimball Island and fend oil past.	
	. 3	Kimball Island - Cabin Slough	3500		600	6/6		bboat: very shallow draft	30 WATER /5 LAND
		5						Exclude oil at east end of Kimball Island, from penetrating marshes, channels, pockets and Cabin Slough	
2-786	. 1	Mayberry Slough - Donlon Island	800	150		1/1			5 PERSON
		5						Exclude oil from entering Mayberry Cut on the ebb tide using deflection-exclusion booming.	
	. 2	Mayberry Slough - Donlon Island	1200	2000		2/1	1	protable & VTBboats: shallow water	12
		5,6						On the EBB: Exclude and collect oil at Mayberry Slough mouth by deflection on outside and exclusion collection inside.	
	. 3	Mayberry Slough - Donlon Island	1000	4500	1000	3/3			19 PERSONS
		5						Exclude oil entry to interior of Donlon Island through breaks in southern levee, using shallow deflection-exclusion configuration	
2-789	. 1	West Island	4500			4/4		Bboat: very shallow draft	2 WATER / 4 LAND
		5						Exclude oil from entering interior island marshes and from penetrating marshes along western tip.	
2-790	. 1	Three Mile Slough - San Joaquin River	5000			4/1	1/1	SBS/Portable	14ON WATER 5 LAND
		5						For oil threats from San Joaquin River side, stop oil from entering slough and spreading to Sacramento River side.	

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# Entrapment Zone - Site Summary

2-700 -A

**County:** Contra Costa, Solano, Sacramento  
**USGS:** Honker Bay, Antioch North

**GRP:** **Latitude** 38 02 N **Longitude** 121 49 W  
**OSPR Map:** **Last ACP Update** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

The location of this site moves back and forth with the tide and also with the seasonal river outflow. Although it is not a discrete physical location, it is a very precise water column - salinity locale. The entrapment zone is an open water zone where the fresh waters of the Sacramento and San Joaquin rivers meet and mix with the saline bay waters. Its location is variable depending upon seasonal outflow and tides and tends to be between Honker Bay and Antioch but during times of high outflow has been as far west as Carquinas Straits. In this mixing zone, suspended organics and nutrients tend to accumulate, creating a highly biologically-productive area. This then becomes an important feeding area for all manner of creatures from zooplankton, to fish larva, fry and smolts, to adults Delta and longfin smelt to striped bass. There is no strategy to protect this area except open water skimming to minimize degree of product contact and dissolution.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

The area is of major importance to juvenile fish, adult fish and migratory waterfowl. It is the most important nursery area for most migratory species and other important fish and invertebrate stocks in the Delta and river system.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
	Chuck Armor	Ca Dept Fish and Game, Bay/Delta	(209) 944-7800	
	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-700 -A      Entrapment Zone - Site Strategy

County: Contra Costa, Solano,

CHART: 18656 Suisun Bay

Latitude  
38 02 N

Longitude  
121 49 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

The location of this site moves back and forth with the tide and also with the seasonal river outflow. Although it is not a discrete physical location, it is a very precise water column - salinity locale.

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

none identified

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

### **SITE STRATEGIES**

#### **Strategy 2-700.1**

(USCG Strategic Objective: 3 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 10/01/1997

#### **Objective or Prevention Condition**

minimize the oil on the surface of the bay.

#### **Technique Details**

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

There is no protective strategy for this site because the site traverses with the tide. Only on-water collection can mitigate the oil presence or threat.

### **Table of Response Resources**

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-700.1								TSA & SPS				3

### **LOGISTICS**

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

The entrapment zone is the mixing zone of river and bay waters. It is only approachable by water.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)

#### **WATER LOGISTICS:**

Access limitations: depth, obstructions: N/A

Boat Launching, Loading, Docking      Pittsburg, McAvoy's, Martinez.  
and Services Available:

**FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:**

**COMMUNICATIONS LIMITATIONS / PROBLEMS:**      No Problems      Radio      Pager      Cell phone

**ADDITIONAL COMMENTS**

**Entrapment Zone - NO Site Protection Strategy - NO Diagram**



# Stake Point Marshes - Site Summary

2-702 -A

**County:** Contra Costa  
**USGS:** Honker Bay

**GRP:** Latitude 38 03 N Longitude 121 57 W  
**OSPR Map:** Last ACP Update 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This marshy area on the Contra Costa shore of east Suisun Bay extends from the entrance to Harris Yacht Harbor (McAvoy's Marina) east to the water intake slough at Mallard Island. It is an extensive marsh system with multiple small channels fingering channels. Most of the channels are small but three are extensive including two dead-end channels which run straight south for over a quarter mile into the land. The third channel is in the east end and winds extensively. The front marsh is saline tule with some pickle weed. Marshes inland are fresh with some large expanses of cattail. Thought the marshes are grazed by cattle, there is extensive wildlife habitation by mammals and birds. The Bay front is alternating eroding and accreting.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including the following special status species: California black rail, saltmarsh harvest mouse.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
	Phillis Faber			
	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
	Steve Gallo	PG&E	(510) 801-5384	
	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-702 -A Stake Point Marshes - Site Strategy

County: Contra Costa

CHART: 18656 Suisun Bay

Latitude  
38 04 W

Longitude  
121 57 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This marshy area on the Contra Costa shore of east Suisun Bay extends from the entrance to Harris Yacht Harbor (McAvoy's Marina) east to the water intake slough at Mallard Island.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Shallows.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Inner channels and marshes as well as waterfront marshes are vulnerable to oil penetration. Responders should minimize trampling of vegetation and tracking oil into marshes and sediments. Tiny endangered plants and animals are present.

## SITE STRATEGIES

### Strategy 2-702.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 10/01/1997

#### Objective or Prevention Condition

Keep oil out of extensive inner channels and marshes by exclusion booming of six openings.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set 8x8+ Cboom across all six openings. Anchor near shore and leave a trailing boom end to insure tidal seal. Back with sorbent.

### Strategy 2-702.2

(USCG Strategic Objective: 8 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 10/01/1997

#### Objective or Prevention Condition

Protect bayfront emergent marsh margin from oil penetration using protective boom.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Anchor 6X6+ protection boom anchored off marsh margin. If windchop is likely to wash oil over the boom, then double boom: deploy a second layer of boom. Smaller boom or sorbent boom may be used for the second layer only if it is deployed between the 6x6+ and the marsh. Provide for oil skimming/collection if oil is likely to be collecting between the booms.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-702.1	2000			4/22+ & 6/12+/danforths, stakes	600	3/2				13 PERSONS	frequent checks	5
2-702.2		10000		15/25lb/danforth anchor		4/2				25 WATER/ 5	frequent checks	8

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

There is no vehicle access to this site. By water, the site is immediately upstream from McAvoy/Harris' Marinas

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)

NO VEHICLE ACCESS TO WATERFRONT

### WATER LOGISTICS:

Access limitations: depth, obstructions: GOOD AT MED TO HI TIDE

Boat Launching, Loading, Docking Launch and complete marina facilities are available at Harris' or McAvoy's Marinas 2 miles west, and Services Available: and at Pittsburg Marina and public ramp to east.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Both Pittsburg and Harris' or McAvoy's provide excellent staging or deployment sites. Diverse facilities are available at both. Security can be an issue at Pittsburg.







COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

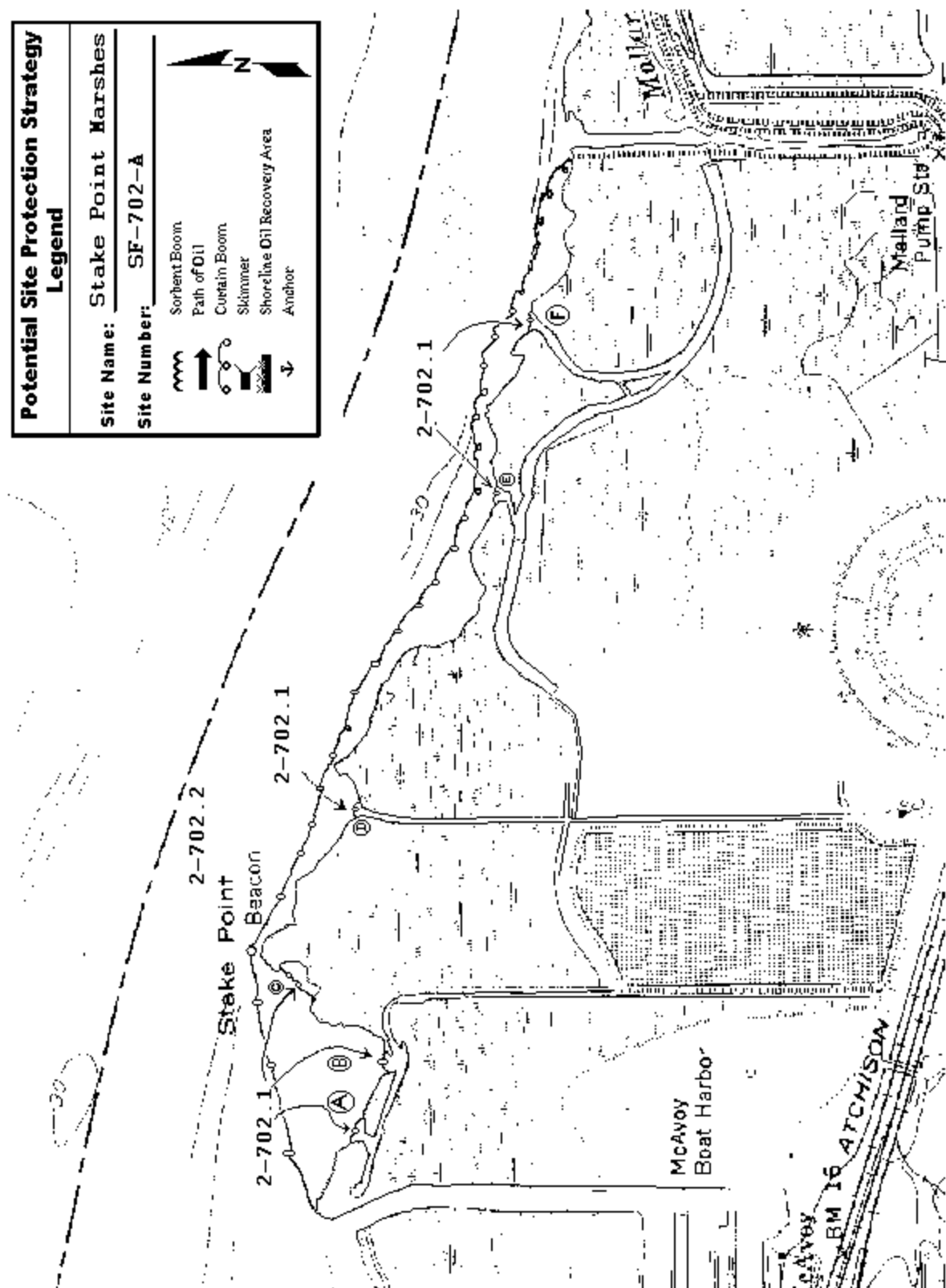
### ADDITIONAL COMMENTS

**Potential Site Protection Strategy Legend**

<b>Site Name:</b>	Stake Point Marshes
<b>Site Number:</b>	SF-702-A

	Sorbent Boom
	Path of Oil
	Curtain Boom
	Skimmer
	Shoreline Oil Recovery Area
	Anchor



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# Mallard Island - Site Summary

2-705 -A

**County:** Contra Costa  
**USGS:** Honker Bay

**GRP:** Latitude 38 02 N Longitude 121 55 W  
**OSPR Map:** Last ACP Update 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

All of Mallard Island and Slough on the Contra Costa shore of Suisun Bay, including the freshwater intake slough at the west edge of Mallard Island and the emergent marshy islands east of Mallard island. The site has emergent marsh along most margins. The mainland marsh to the south of Mallard Slough is protected behind a riprap levee and is isolated from spills providing that the flood gate just east of Mallard Island is closed. The slough to the pump house is a freshwater intake to Contra Costa Water District during some seasons. Mallard Island is partially protected by levees along the north shore and some banks are eroding, but is open on the south shore. The area has both cattail and tule marsh.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including the following special status species: California black rail, saltmarsh harvest mouse.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
	Phillis Faber			
	Dr. Naill McCarten	Botanical Research	(510) 841-8145	
	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
	Jerry Karr	Exxon Benicia	(707) 745-7568	
	Steve Gallo	PG&E	(510) 801-5384	
	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-705 -A Mallard Island - Site Strategy

County: Contra Costa

CHART: 18656 Suisun Bay

Latitude  
38 02 N

Longitude  
121 55 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

All of Mallard Island and Slough on the Contra Costa shore of Suisun Bay, including the freshwater intake slough at the west edge of Mallard Island and the emergent marshy islands east of Mallard island.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Shallow in inner sloughs.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Inner channels and marshes as well as waterfront marshes are vulnerable to oil penetration. Responders should minimize trampling of vegetation and tracking oil into marshes and sediments. Tiny endangered plants and animals are present.

## SITE STRATEGIES

### Strategy 2-705.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 10/01/1997

#### Objective or Prevention Condition

Exclude oil from entering inner sloughs using exclusion booming of slough mouths.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Lay 8x8+ curtain boom across slough openings - 3 openings (see A, B, & C). Deploy a shallow chevron configuration using mid-boom anchor. The east Mallard Slough mouth (C) requires about 2000' of Hboom at a long diagonal to the riprap point to the east. Anchor near shore and leave a trailing length to achieve a tidal seal. Double boom (on A particularly) or back with sorbent boom.

### Strategy 2-705.2

(USCG Strategic Objective: 6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 10/01/1997

#### Objective or Prevention Condition

If oil is threatening from the east, set up a capture site to intercept the oil as well as implement the above strategy.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set 8x8+ curtain boom from riprap levee point east of Mallard Island at an acute to the east. Deploy land-based skimmer and storage

### Strategy 2-705.3

(USCG Strategic Objective: 8 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 10/01/1997

#### Objective or Prevention Condition

Protect emergent marsh frontage on Suisun Bay side of Mallard Island by deploying one or more layers of protection boom.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set 3200 ft of 6x6+ Hboom along entire north margin of Mallard Island. If wind chop is likely to exceed boom floatation a second lay of boom will be necessary: if two layers are necessary, the inner layer may be 4X4+. Keep boom layers at least 6' apart and prepare for skimming oil which will collect between them.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-705.1	2200			8/25 & 4/15lb/danforth	400	3/2				14 PERSON	close verification	5
2-705.2	300			2/25lbs/danforth	100	1/1	portable & VT		1	2 PERSON	1 skimming attendant	6
2-705.3		3200		8/25lb/danforth		3/2				15 WATER/ 5	regular checks	8

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Access by vehicle is through PG&E power plant off Willow Pass Road in Pittsburg. By water, the site is about two miles east of McAvoy's and a mile west of Pittsburg.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
ALL WEATHER/TRAFFIC LEVEE ROAD

### WATER LOGISTICS:

Access limitations: depth, obstructions: GOOD DRAFT AT MED TO HI TIDE

Boat Launching, Loading, Docking

Launch and complete marine facilities are available at Harris' or McAvoy's Marina 2 miles west

and Services Available: and at Pittsburg Marina's public ramp to the east.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Both Pittsburg and Harris' or McAvoy's provide excellent staging or deployment sites. Diverse facilities are available at both. Security can be an issue at Pittsburg.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

No Problems

Radio

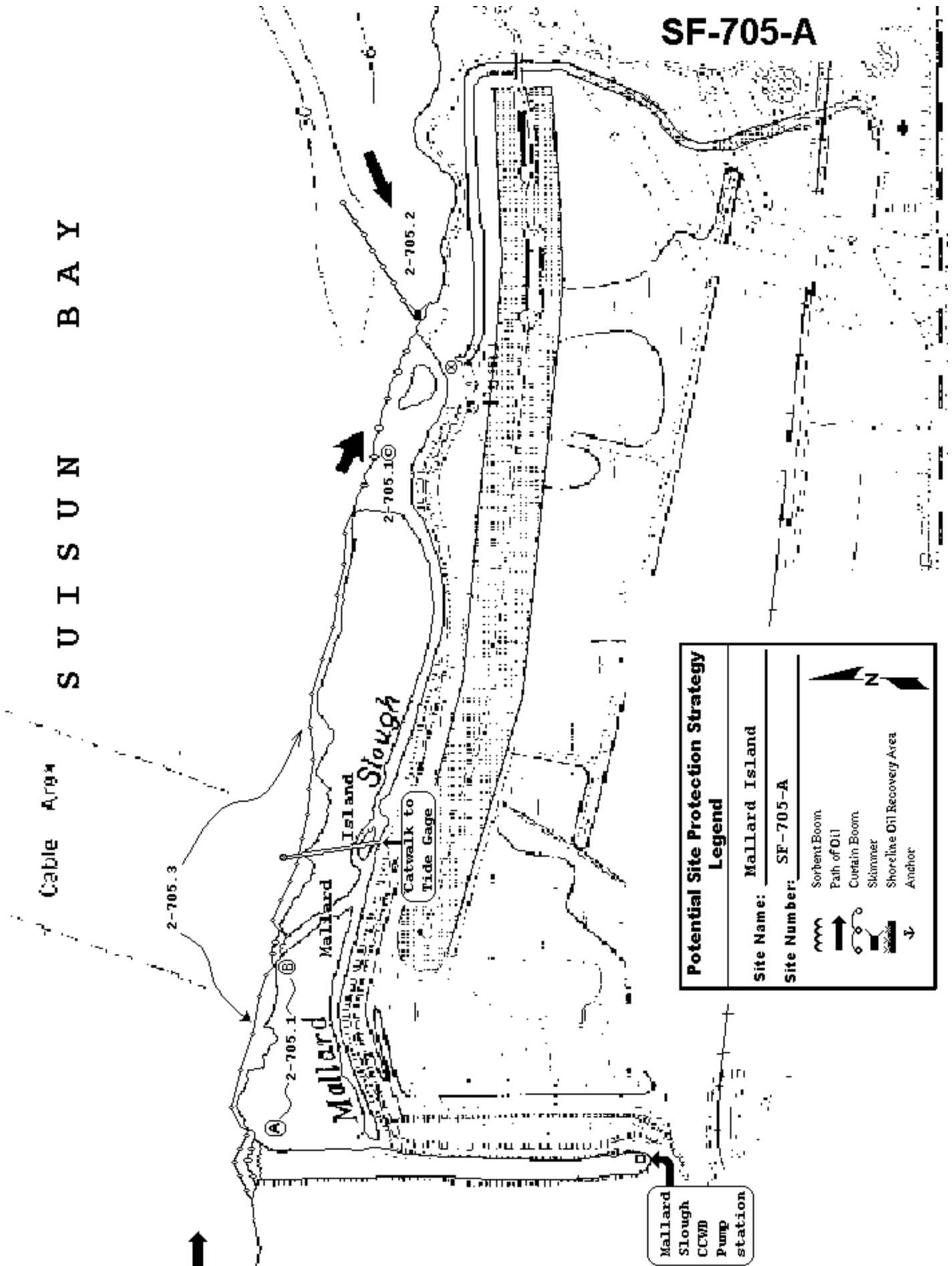
Pager

Cell phone

### ADDITIONAL COMMENTS

SF-705-A

S U I S U N B A Y



Potential Site Protection Strategy Legend	
Site Name:	Mallard Island
Site Number:	SF-705-A
	Sorbent Boom
	Path of Oil
	Curtain Boom
	Skimmer
	Shoreline Oil Recovery Area
	Anchor

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# Brown's Island - Site Summary

2-710 -A

**County:** Contra Costa  
**USGS:** Antioch North

**GRP:** **Latitude** 38 03 N **Longitude** 121 05 W  
**OSPR Map:** **Last ACP Update** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site includes all of Brown's island and Middle Slough just to the east. This island at the eastern end of Suisun Bay is surrounded by channels more than one quarter mile wide. It is part of the East Bay Regional Parks land. It is covered with marshes, lagoons, and waterways. The island has three plant communities including freshwater marsh, willow scrub, and riparian forest. It is not diked

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

The site contains the rare plant species Suisun Marsh aster, Aster chilensis ssp. Lengths, delta tule pea, Lathyras jepsonii var. Jepsonii, and Mason's lilaeopsis masonii. Also, the area is of major importance to migratory waterfowl.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
	Phillis Faber			
	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-710 -A Brown's Island - Site Strategy

County: Contra Costa

CHART: 18656 Suisun Bay

Latitude  
38 03 N

Longitude  
121 05 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

This site includes all of Brown's island and Middle Slough just to the east.

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

Shallows, particularly on the north side.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is that the entire Island is a marsh with marshy margins which are vulnerable to oil. Of greater concern are the slough openings Which would more than double the exposure. Closing slough and keeping oil off shorelines are the objectives. Responders should minimize disturbance of vegetation and avoid tracking oil into marsh and sediments.

## SITE STRATEGIES

### Strategy 2-710.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
07/01/1996 10/01/1997

#### Objective or Prevention Condition

Exclusion Booming if oil is moving from east or south side toward site: Deploy exclusion booming at Middle Slough, small openings and channels, and marshy southeast corner.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Establish boom and skimmer to capture oil at the mouth of Middle Slough using 8X8 + boom anchored to channel islands on each side. Deploy 1500 ft. of 4X4 + boom from the skimming boom along the emergent marsh at the southwest corner of the island. Block the mouth of Winter Island channel with 4X4 + boom with sorbant backing. Boom the slough mouth between G3 and G5 with 4X4 boom with sorbant backing. Place sorbant blocking in any other openings to interior sloughs.

### Strategy 2-710.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
07/01/1996 10/01/1997

#### Objective or Prevention Condition

Exclusion Booming: if oil is moving from west toward site: Deploy exclusion booming from Pt. Emmet to the creek mouth on the northwest shore of Brown's Island, and at all inlets on the remaining shoreline.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 2000 ft of 4X4 + boom from Pt. Emmet to the creek mouth, a backup 4X4 and sorbant across creek mouth, and boom the mouth of slough opening halfway to Middle Slough (back with sorbant boom). Set 600' of 8X8 + boom across the northerly mouth of Middle Slough. Set up a skimmer with boom anchored to channel levee in the "pocket" just east of Middle Slough mouth and place sorbant booms on the channels inside the pocket.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-710.1	2400	2000		12/22+ /danforths	1000	4/2	SPS		1	12 persons	3 persons continuous	5
2-710.2	600	2000		6/22+ lbs./danforths	500	2/2	SPS		1 Bboat: very shallow draft	10	see strategy 1	5

## LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

access by water only: Browns Island is immediately upstream (east) of Pittsburg Marina.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
NONE

#### WATER LOGISTICS:

Access limitations: depth, obstructions: Shallows, particularly on north side

Boat Launching, Loading, Docking Pittsburg and Antioch Marinas.

and Services Available:

**FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:**

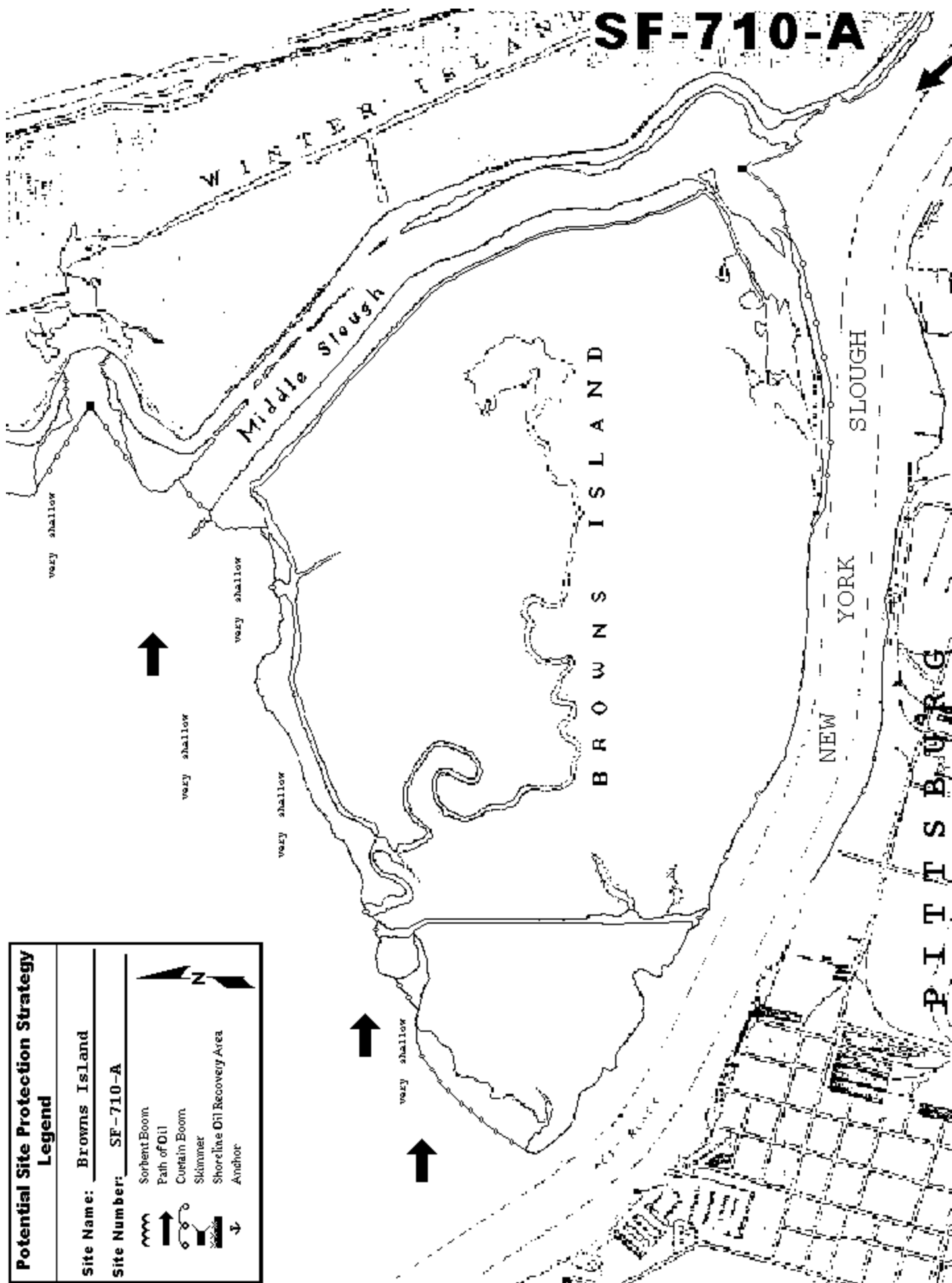
Pittsburg and Pittsburg Marina or Antioch has full range marine and other facilities. Pittsburg launch ramp is a good deployment site.

**COMMUNICATIONS LIMITATIONS / PROBLEMS:** No Problems Radio Pager Cell phone

#### ADDITIONAL COMMENTS

Access: By water, Brown's Island is easily accessible from the Pittsburg Marina.

**SF-710-A**



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-A

**County:** Contra Costa  
**USGS:** Antioch North

**GRP:** Latitude 38 03 N Longitude 121 51 W  
**OSPR Map:** Last ACP Update 07/01/1996

**SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site includes the leveed island, surrounding berm and channel islands, the accreting, unleveed marsh at the north tip (Point San Joaquin) and the mudflats to the west of the tip. This island is flooded in the interior and has unregulated exchange through a tide gate. The interior of the island is emergent tule marsh. The levees and surrounding berm and channel islands are vegetated with shrub-scrub and emergent marsh; most are suffering from wave erosion. The north tip is an accreting emergent marsh. This tip and a pocket at the north west end of the main island are natural wind catchment sites.

**SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here.

**RESOURCES AT RISK****HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including the following special status species: California black rail, saltmarsh harvest mouse.

**SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

**CULTURAL and ARCHEOLOGICAL SENSITIVITIES****KEY SITE CONTACTS** - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
B	Phillis Faber			
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
E	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	
EL	Robert Calone	Winter Isl Duck Club/Delta Pro Com	(510) 473-9660	

## 2-712 -A Winter Island - Site Strategy

County: Contra Costa

CHART: 18656 Suisun Bay

Latitude  
38 03 N

Longitude  
121 51 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site includes the leveed island, surrounding berm and channel islands, the accreting, unleveed marsh at the north tip (Point San Joaquin) and the mudflats to the west of the tip.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The main concern here is oil penetrating into this marshy island either via the various tidal channels or by oil accumulating and pushing into the marshy margins. There are a variety of very sensitive species here including mammals, fish and plants. These and the marsh they depend upon are very vulnerable to oil. They are also threatened by response activities such as foot traffic and oil tracking into marsh or sediments.

## SITE STRATEGIES

### Strategy 2-712.1

(USCG Strategic Objective: 7,8 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Protect Pt. San Joaquin Marsh and Mudflats from oil threats from the west using an extend exclusion-deflection chevron to fend pas

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 3500 ft. of 8x8+ boom from the tip of Pt. San Joaquin westerly along the 4 ft. depth contour at the north westerly margin of the mudflat. Deploy a second 2500 ft. of 8x8+ boom leg from the collection pocket east of the mouth of middle slough (2-710 see Browns Island) northwest to connect with the first boom leg.

### Strategy 2-712.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

For oil threats from east exclude oil entry to north cross channel and easterly barrow channel with small boom segments.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Block openings to small channels with exclusion boom segments.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-712.1	6000			13/50lb/danforth anchors		6/4			26 WATER/ 5	close checking	7,8
2-712.2		700		8/15lb/danforths		1/3		Bboat: shallow draft	9	performance checks	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

No land Access. Water access: Winter Island is a mile east of Pittsburg Marina and a mile west from Antioch Marina.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
NO LAND ACCESS

### WATER LOGISTICS:

Access limitations: depth, obstructions: VERY SHALLOW WATER AND OBSTRUCTIONS

Boat Launching, Loading, Docking and Services Available: Boat launch nearby at Pittsburg and Antioch Marinas, and at public ramps.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Good staging and facilities at both Antioch and Pittsburg waterfronts.

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

**2-712.1**

2-712.2

B R O W N S I S L A N D

**Site Number:** SF-712-A



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# Pittsburg-Antioch Marsh (Dow Wetlands) - Site Summary

2-715 -A

**County:** Contra Costa  
**USGS:** Antioch North

**GRP:**           **Latitude** 38 01.4 N   **Longitude** 121 05 W  
**OSPR Map:**                   **Last ACP Update** 01/01/2000

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

The site is located on the south side of the San Joaquin River at Antioch and extends from Dowest Slough to the pier east of the Antioch Marina (at the end of I Street). This freshwater marsh has a large leveed marsh enclosure and unenclosed emergent marsh. The leveed marsh has been named Dow Wetlands and extends from the Antioch Marina to Contra Costa Canal at the west levee. This interior marsh is mostly cattail-tule-pickleweed marsh, and there is a freshwater marsh at the west end. There are breeches in the levee at Antioch Point, which allows a tidal exchange. The levee has a growth of willow. Outside the levees are additional marshes. Along the river side of the levee there are emergent growths, but the more remarkable emergent marshes are those at the mouth of Contra Costa Canal to the west, the shoreline east of the marina, Dowest Slough and the emergent growth on the offshore bar in the San Joaquin River.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

Marsh is A-priority year-round. There are Special Status Species abiding here.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

The habitats sensitive to oil are marshes and riparian growth along the levee and the bank. The marshes are distinctive. The interior marsh was traditionally freshwater or brackish, there has always been pickleweed and saltgrass, particularly with the more saline influence from the breach, but the freshwater marsh at the east corner is well buffered from oil. This marsh can be protected from oil by excluding entry at the breeches. The marshes outside the levee are of several types. The emergent vegetation on the shoal in the San Joaquin River is almost exclusively tules and difficult to protect. The marsh to the east of the marina, though small, is freshwater type vegetated ranging from high marsh to emergent and can be protected by protective and defluctive booming. The marsh at the mouth of Contra Costa Canal is expanding; this pocket has little flow, and the accreting margin is an increasing band of emergent species at the toe of the aged revetments. The two pocket sloughs to the west (Dowest and unnamed) are eurihaline marshes and vulnerable to oil unless boomed.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

This is suitable habitat for a variety of marsh bird species and is of importance to wintering migratory waterfowl. The full range of marsh mammals occur here, including beaver and river otter. The rich marsh vegetation includes several rare species: Suisun marsh aster and Mason's lilaeopsis.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

### **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B	Phillis Faber			
B/T	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
T/B	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
E/L	Dow Chemical 24 hr	Dow Chemical Co, Pittsburg	(925) 432-5278	
L/B	Steve Gallo	PG&E	(510) 801-5384	
T/B	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
A/L	Robert Calone	Winter Isl Duck Club/Delta Pro Com	(510) 473-9660	

# 2-715 -A Pittsburg-Antioch Marsh (Dow Wetlands) - Site Strategy

County: Contra Costa

CHART: 18656 Suisun Bay

Latitude  
38 01.4 N

Longitude  
121 05 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

The site is located on the south side of the San Joaquin River at Antioch and extends from Dowest Slough to the pier east of the Antioch Marina (at the end of I Street).

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

There are obstructions and shallows in these waters.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Marsh always has a high protection priority. First concern is to exclude oil from entering the interior marsh by booming the breeches in the levee. Secondary concerns are to keep oil off of marshes to the east, west and north of Dow Wetlands by deflection and protection booming. Responders should avoid trampling vegetation and trampling oil into soft muds. There are very small rare plants and endangered mammals are present.

## SITE STRATEGIES

### Strategy 2-715.1

(USCG Strategic Objective: 5 ) Dates: SISRS Approved last tested ACP date

#### Objective or Prevention Condition

05/17/1999 07/07/1999 07/07/1999 01/01/2000

Exclude oil from entering the marshes: booming levee breeches at Antioch Pt. & and small openings, mouth of Contra Costa Canal, Dowest Slough, & unnamed slough.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

- 1) At Antioch Pt (just west of the marina), deploy an extended chevron which encompasses both breeches using 800' 6X6+ (9X9+ Hboom with heavy anchors when there are winds). Back with sorbent. ( This may alternatively be accomplished by by deploying 800' of 8X8+ from Antioch Pt as in strategy -.2 and attaching 500' from mid boom to the shoreline west of the breach. To do this add 400' to the amount shown below.)
- 2) At the mouth of Contra Costa Cannal (which is just west of the unnamed point between Antioch Point and Dowest Slough), exclude oil from channel and cove. Boom creek mouth with 20' 4X4+ (and if time an resources permit, boom across cove with 800' 4X4+ stake and anchor in place).
- 3) Exclude oil from Dowest Slough (200' 4X4+) and pocket cove east of Dowest Slough (100' 4X4+).

### Strategy 2-715.2

(USCG Strategic Objective: 7 ) Dates: SISRS Approved last tested ACP date

#### Objective or Prevention Condition

05/17/1999 07/07/1999 07/07/1999 01/01/2000

Flood tide: deflect oil away from sensitive areas.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil on the Flood tide, set 800' 9X9+ Hboom cascading off the point west of Antioch Pt and just east of the Contra Costa Canal mouth to deflect oil back into the channel and past the emergent growth in the San Joaquin. Also, set a 200' 9X9+ deflection just west of Antioch Marina entrance to deflect away from marsh east of the Marina. SSW of G13 R2

### Strategy 2-715.3

(USCG Strategic Objective: 7 ) Dates: SISRS Approved last tested ACP date

#### Objective or Prevention Condition

05/17/1999 07/07/1999 07/07/1999 01/01/2000

Ebb tide: deflect oil away from sensitive areas.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil on the ebb tide, set 400' 9X9+ Hboom cascading off the tip of the chevron to deflect oil past the emergent growth in the San Joaquin.

If oil is massed and moving along the Antioch waterfront, deflect oil away from east marsh at the pier to deflect it away from the east

### Strategy 2-715.4

(USCG Strategic Objective: 8 ) Dates: SISRS Approved last tested ACP date

#### Objective or Prevention Condition

05/17/1999 07/07/1999 07/07/1999 01/01/2000

Protective booming of shoreline of marsh to the east of Antioch Marina.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 800' 4X4+ boom along the shoreline from the fishing pier at the Antioch Marina east to the pier to the east (at I street).

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-715.1	900	350		5/22+/danforths with chain &	800	2/1			Bboat: 1 very shallow	8	2	5
2-715.2	1000			6/22+/danforths + chain		2/1				8		7
2-715.3	600			6/22+/danforths + chain		1/0				3	as previous	7
2-715.4	800			3/12+/danforths & stakes		1/1				5		8

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

From Hwy 4, exit on Summersville Road and go north. Summersville becomes 4th Street (after a right curve). Turn north (left) on L Street. Marsh and marina are across railroad tracks.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
variable depending on shore segment: ft to large truck.

### WATER LOGISTICS:

Access limitations: depth, obstructions: shallows and obstructed at ends. Long-shore channel at levee

Boat Launching, Loading, Docking boat launch & fuel on site. Also private launch -Winter Isl. Duck Club - near Dowess Slough.  
and Services Available: Full services at Pittsburg and Antioch Bridge marinas.

## 2-715 -A     Pittsburg-Antioch Marsh (Dow Wetlands) - Site Strategy (Continued)

**FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:** There are many options for local and regional staging and field outposts depending on the scope of the spill impacts. Local staging at Antioch Marina. Further to the west is Pittsburg Marina. To the west is the public access at Antioch Bridge, nearby marinas, and PE&G

**COMMUNICATIONS LIMITATIONS / PROBLEMS:**

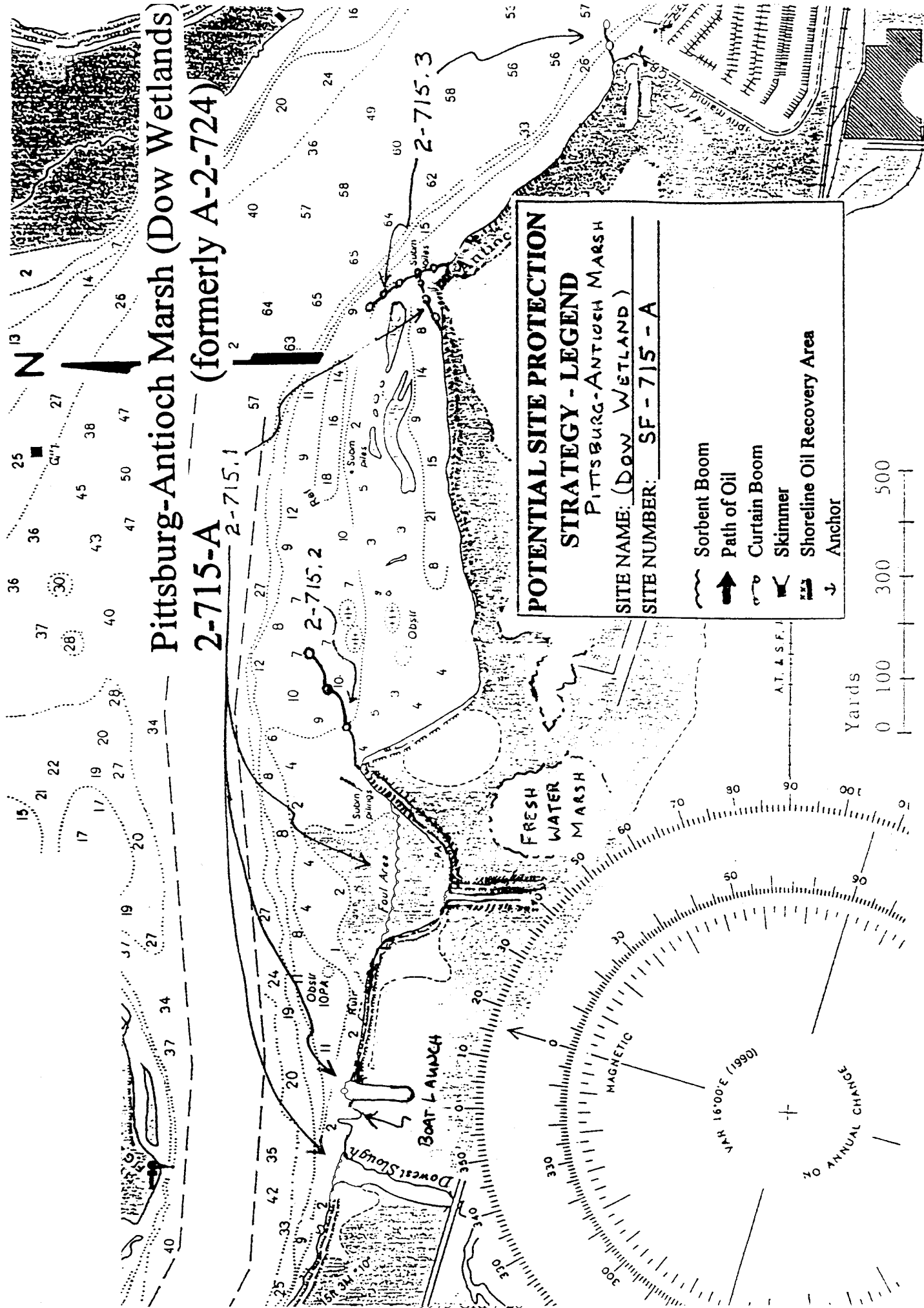
No Problems

Radio

Pager

Cell phone

**ADDITIONAL COMMENTS**



# Antioch Dunes National Wildlife Refuge - Site Summary

2-718

-A

**County:** Contra Costa  
**USGS:** Antioch North

**GRP:** Latitude 38 01 N Longitude 121 46 W  
**OSPR Map:** Last ACP Update 01/01/2000

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

The water front exposure of this site is from the Fiberboard factory west to the parking yard at Fultons boat works and includes a scenic revegetated remnant of the Antioch Dunes which is now part of the Antioch Dunes National Wildlife Refuge. The site is notable for its remnant dunes which supports a unique dune ecosystem. The dunes were and extensive historic habitat throughout this portion of Contra Costa County from Antioch to Oakley. The dunes had a characteristic flora and fauna some of which were unique to this habitat. Now only these tow sites 718 and 719 remain. Marshes, riverine dunes, and former dunes along the south bank of the San Joaquin River. Although this dunes habitat is high in elevation and, consequently, not very vulnerable to oiling the sensitive dune ecosystem, there is danger of encroachment and disturbance during response. The waterfront margin is sandy beach and emergent marsh.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here. No one may enter this area without accompaniment of USFWS representative.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

The site is notable for its remnant dunes which supports a unique dune ecosystem with its characteristic flora and fauna some of which were unique to this habitat. The waterfront margin is sandy beach and emergent marsh. Although this dunes habitat is high in elevation and, consequently, not very vulnerable to oiling the sensitive dune ecosystem, there is danger of encroachment and disturbance during response to the shoreline oiling.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

The rare flora supports a community of rare insect life (12 rare species) and one endangered butterfly: Lang's Metalmark. Silvery Legless Lizard also resides here.

A number of rare plant occur here including Antioch dunes evening primrose, Mason's lileopsis, Contra Costa wallflower, Suisun aster, Delta tule pea, Contra Costa goldfields, diamond petalled California poppy.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TBE	Betsy Radtke	US Fish and Wildlife Service	(707) 552-6213	
TBE	E. Fernandez	US Fish Wildlife Service	(510) 792-0222	
TBE	Dr Peter Baye	USFWS Ecological Services	(707) 562-3003	
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-718 -A Antioch Dunes National Wildlife Refuge - Site Strategy

County: Contra Costa

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 01 N

Longitude  
121 46 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

The water front exposure of this site is from the Fiberboard factory west to the parking yard at Fultons boat works and includes a scenic revegetated remnant of the Antioch Dunes which is now part of the Antioch Dunes National Wildlife Refuge.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

none identified

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

No one may enter this site without the accompaniment or direction of the US Fish & Wildlife Service Representative in charge of this refuge. The main concern is that response personnel will accidentally damage the endangered plant or animal living in this dune site. If this site is oiled, no entry or cleanup should be attempted without USFWS concurrence. Oil impacts will be limited to a narrow band along the waterfront. Shoreline is steep and easily accessed from water.

## SITE STRATEGIES

### Strategy 2-718.1

(USCG Strategic Objective: 3 )

Dates: SISRS Approved last tested ACP date  
05/17/1999 01/01/2000

#### Objective or Prevention Condition

Avoid oiling by on-water interception of oil using mobile skimmers and towed skimming arrays.

#### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

The first line of protection is to remove as much oil as possible before the oil can impact shorelines. At this site this can be accomplished through the deployment of several selfcontained skimming vessels, or mini skimmers. Recommendation is that each skimming vessel should be supported by two boats operated in V towed booming configuration.

### Strategy 2-718.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
05/17/1999 01/01/2000

#### Objective or Prevention Condition

Deflect oil away from this shoreline

#### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

DEFLECTION BOOMING: Deflect oil away from the shoreline and toward the main channel where it is accessible to the skimmers. Deploy 100 feet of deflection boom at the up current end of this property to divert oil from the shoreline to the center of the channel.

### Strategy 2-718.3

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
05/17/1999 01/01/2000

#### Objective or Prevention Condition

If heavy amounts of oil are moving along shore, deploy nearshore containment just outside the site.

#### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

NEAR SHORE CONTAINMENT AND RECOVERY: Oil containment and recovery is possible at Fulton's Shipyard. Deploy 100 feet of deflection boom extending into the current from the shoreline so as to direct oil onto the shoreline. Back the recovery boom with a half length of swamp boom and sorbent boom to insure recovery. Recover oil with a ropemop, duckbill or other shallow water skimmer and a vac truck. Deploy from shore or water.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-718.1											
2-718.2	100			2/22+/danforths with chain	0/1				2		3
2-718.3	100	50			0/1	shallow & VT	1		2	skimming team	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

From Highway 4 go north on A Street thence east on Wilbur Ave. about 1 miles. Turn north on Shipyard Road. Antioch San Dunes National Wildlife Refuge is on the north side and is posted, fenced and gated. (You can also access Wilber Road from the Antioch Bridge toll plaza area and drive westerly.) When approaching by water, use Fulton Ship Yard and Fiberboard for orientation.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
All types are possible but none are permitted. Nearby is good.

### WATER LOGISTICS:

Access limitations: depth, obstructions: good access. Beware of obstructions.

Boat Launching, Loading, Docking Launching at Antioch public launch, Bridge Head Marina, Lawrenson's Marina, Antioch Marina.  
and Services Available: Full services are at marinas.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

All access to this site should be from the water only. Boats may be launched at Antioch Marina or Fulton's Shipyard which is the property immediately to the west of Antioch Dunes. Staging for this site may be at marina's or neighboring Fulton's Shipyard.

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

## Antioch Dunes National Wildlife Refuge - No Protection Diagram Available

## No Protection Diagram Available

# Antioch Dunes and Quarry Canyon - Site Summary

2-719

-A

County: Contra Costa  
USGS: Antioch North

GRP: Latitude 38 01 N Longitude 121 46 W  
OSPR Map: Last ACP Update 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

The water front exposure of this site is from the Fiberboard factory east to the PG&E plant and includes a revegetated remnant of the Antioch Dunes which was a sand quarry and is now part of the Antioch Dunes National Wildlife Refuge. The site is notable for its remnant dunes which though degraded, supports a unique dune ecosystem. The dunes were and extensive historic habitat throughout this portion of Contra Costa County from Antioch to Oakley. The dunes had a characteristic flora and fauna some of which were unique to this habitat. Now only these two sites, 718 and 719, remain: marshes, riverine dunes, and former dunes along the south bank of the San Joaquin River. Although this dunes habitat is high in elevation and, consequently, not very vulnerable to oiling the sensitive dune ecosystem, there is danger of encroachment and disturbance during response. The waterfront margin is sandy beach which rises steeply and has a narrow emergent marsh at the shoreline.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

The site is an "A" priority year-round. Several Special Status Species occur here. No one may enter this area without accompaniment of USFWS representative.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

The site is notable for its remnant dunes which supports a unique dune ecosystem with its characteristic flora and fauna some of which were unique to this habitat. The waterfront margin is sandy beach and emergent marsh. Although this dunes habitat is high in elevation and, consequently, not very vulnerable to oiling the sensitive dune ecosystem, there is danger of encroachment and disturbance during response to the shoreline oiling.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

The rare flora supports a community of rare insect life (12 rare species) and one endangered butterfly: Lang's Metalmark. Silvery Legless Lizard also resides here.

A number of rare plant occur here including Antioch dunes evening primrose, Mason's lileopsis, Contra Costa wallflower, Suisun aster, Delta tule pea, Contra Costa goldfields, diamond petalled California poppy.

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

### KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TBE	Betsy Radtke	US Fish and Wildlife Service	(707) 552-6213	
TBE	E. Fernandez	US Fish Wildlife Service	(510) 792-0222	
	Dr Peter Baye	USFWS Ecological Services	(707) 562-3003	
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-719 -A Antioch Dunes and Quarry Canyon - Site Strategy

County: Contra Costa

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 01 N

Longitude  
121 46 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

The water front exposure of this site is from the Fiberboard factory east to the PG&E plant and includes a revegetated remnant of the Antioch Dunes which was a sand quarry and is now part of the Antioch Dunes National Wildlife Refuge.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Air traffic should be attentive to high power wires and smoke stacks.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

No one may enter this site without the accompaniment or direction of the US Fish & Wildlife Service Representative in charge of this refuge. The main concern is that response personnel will accidentally damage the endangered plant or animal living in this dune site. If this site is oiled, no entry or cleanup should be attempted without USFWS concurrence. Oil impacts will be limited to a narrow band along the waterfront. Shoreline is steep and easily accessed from water.

## SITE STRATEGIES

### Strategy 2-719.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
05/17/1999 01/01/2000

### Objective or Prevention Condition

If heavy amounts of oil are moving along shore, deploy nearshore containment just outside the site.

### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

NEAR SHORE CONTAINMENT AND RECOVERY: Oil containment and recovery is possible at Fulton's Shipyard. Deploy 100 feet of deflection boom extending into the current from the shoreline so as to direct oil onto the shoreline. Back the recovery boom with a half length of swamp boom and sorbent boom to insure recovery. Recover oil with a ropemop, duckbill or other shallow water skimmer and a vac truck. Deploy from shore or water.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-719.1	100	50				0/1	shallow	VT	1	2	skimming team	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

From Highway 4 go north on A Street thence east on Wilbur Ave. about 2.5 miles. Antioch San Dunes National Wildlife Refuge - Quarry Canyon is on the north side between the Fiberboard Plant and the PE&G plant and is posted, fenced and gated. (You can also access Wilber Road from the Antioch Bridge toll plaza area and drive westerly.) When approaching by water use the factories as orientation.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
All types are possible but none are permitted. Nearby is good.

### WATER LOGISTICS:

Access limitations: depth, obstructions: good access. Beware of obstructions.

Boat Launching, Loading, Docking Launching at Antioch public launch, Bridge Head Marina, Lawrenson's Marina, Antioch Marina.  
and Services Available: Full services are at marinas.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

All access to this site should be from the water only. Boats may be launched at Antioch Marina or Fulton's Shipyard which is the property immediately to the west of Antioch Dunes. Staging for this site may be at marina's or nearby Fulton's Shipyard.

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

## Antioch Dunes and Quarry Canyon – No Strategy Diagram Available

### No Strategy Diagram Available



# Big Break Complex - Site Summary

2-730

-A

County: Contra Costa  
USGS: Jersey Island

GRP: Latitude 38 01 N Longitude 121 43 W  
OSPR Map: 168 Last ACP Update 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

This site includes emergent marshes in the San Joaquin River, unnamed flooded/marshy areas east of Antioch Bridge, and Big Break including the adjacent portion of Dutch Slough up to and including lower Marsh Creek. The marshes in the River are recently colonized bars. The west side marsh is a formerly diked area which is now marshy within and without. It is separated from Big Break by a dike and access channel to Big Break Marina. Big Break is a large, flooded area. The perimeter islands and shoreline are emergent marsh, particularly on the southern and eastern edges. It is separated from the San Joaquin and Dutch Slough by an intermittent series of berm islands, the remnants of the old levee.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

### RESOURCES AT RISK

#### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

Highly productive marshes on east and south shore. T & E species present in this area.

#### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

Threatened: California Black Rail (S)  
Migratory waterfowl

Sensitive plants found here include the rare: Mason's Lilaeopsis (S) and Suisun Marsh Aster (F)

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

### KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-730 -A Big Break Complex - Site Strategy

County: Contra Costa

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 01 N

Longitude  
121 43 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site includes emergent marshes in the San Joaquin River, unnamed flooded/marshy areas east of Antioch Bridge, and Big Break including the adjacent portion of Dutch Slough up to and including lower Marsh Creek.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Numerous uncharted snags and uncertain water depths exist in this area. Aerial traffic beware of high wires in vicinity.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

This is an extensive marshland complex with sensitive shorelines and sensitive species. Once oil enters these embayments, it will be nearly impossible to collect, cleanup or rehabilitate. The strategies are aimed at keeping oil out of the marshes. Responders should be aware that rare species are present and should avoid damaging marsh vegetation and tracking oil into marshes and sediments.

## SITE STRATEGIES

### Strategy 2-730.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude oil from entering open waters of Dutch Slough, Big Break and west flooded area by exclusion/diversion boom openings.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Close the three openings to the extended site:

1. Boom the mouth of the west side marsh with 400'8X8+ exclusion/deflection boom configured in a shallow chevron "V" using a mid-boom anchorage.
2. Boom the opening to Big Break with 3000'8X8+ exclusion boom from the mouth of Big Break Marina channel to the islands at the mouth of Dutch Slough.
3. From the island at the mouth of Dutch Slough, deploy 1500'8X8+ collection/exclusion boom at a long diagonal to the Jersey Island shore. Use 2 to 4 mid-boom anchors to keep the boom from relaxing into a catenary curve. Establish a land-based skimming operation at the Jersey Island levee. Back this collection with second layer of boom, sorbent and/or water-based skimmers, if first collection boom fails to intercept the oil.

### Strategy 2-730.2

(USCG Strategic Objective: 7 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

On ebb: Deflect oil away from entrance to Dutch Slough and Big Break into main channel to deter oil from entering.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Above the entrance to Dutch Slough, Cascade enough 200'- 500' segments of harbor boom from Jersey Island to deflect oil into deep channel and away from Dutch Slough mouth.

### Strategy 2-730.3

(USCG Strategic Objective: 8 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Protective booming of marsh front: west side marshes

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 3600'6X6+ boom along the marshy shoreline east of marinas at the toe of the Antioch Bridge. Link this boom with the 8X8+ exclusion boom at the opening to the west flooded area.

### Strategy 2-730.4

(USCG Strategic Objective: 7 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Deflection On Flood: deflection to past site and keep it in the main channel

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil approaching site from west, cascade 200'- 500' segments of harbor boom beginning near the Antioch Bridge out toward and in front of shallow water and marsh islands. Keep oil deflected into main channel of river.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-730.1	4800			14/22+lbs/danforth & stakes	200	4/4			Bboat: very shallow draft	20 WATER / 5	skimming & checks	5
2-730.2	2500			10/22+danforth		4/2				14 WATER/5	checks	7
2-730.3		3600		8/12+danforths and stakes		2/8			Bboat: very shallow draft	22 WATER, 4	occasional checks	8
2-730.4	2500			16/22+danforths		4/2				14		7

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Access primarily by water from the San Joaquin River, Dutch Slough or Big Break Marina. Limited land access via a few roadways on the southerly margin: Take hwy 4 toward Oakley, turn N on Big Break Road to Big Break Marina.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
POOR ACCESS EXCEPT JERSEY ISL. WHEN DRY

### WATER LOGISTICS:

Access limitations: depth, obstructions: GOOD CHANNELS/MANY SHALLOWS OBSTRUCTIONS

Boat Launching, Loading, Docking Launch is available at all marinas near Antioch Bridge and PG&E ipark. Also at Big Break and Services Available: Marina.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

There are several good sites for staging: Dutra Dredge at Big Break Marina, area marinas, PG&E park. Marine and other facilities are abundant nearby.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

No Problems Radio Pager Cell phone






### ADDITIONAL COMMENTS

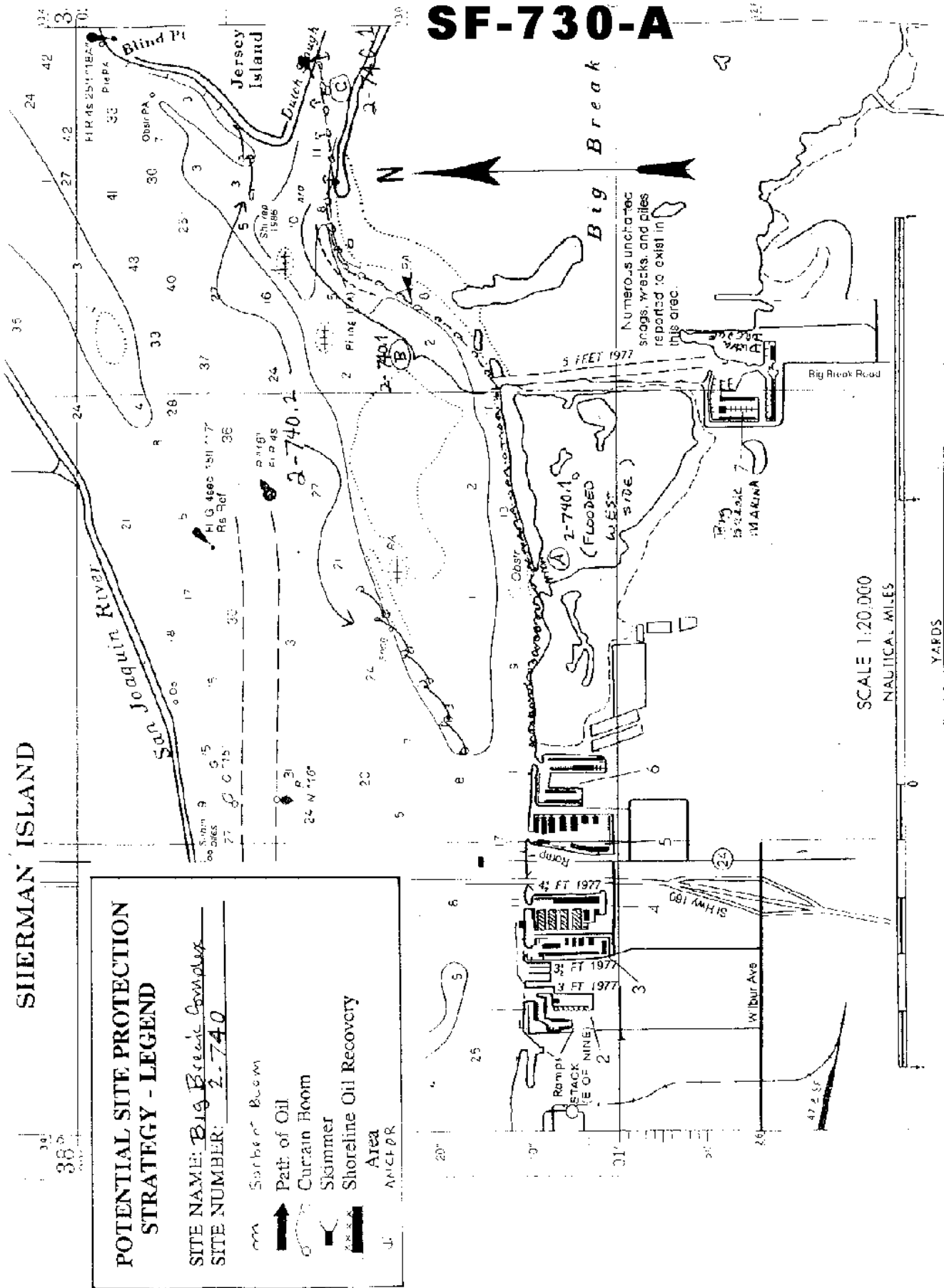
# SF-730-A

## SIHERMAN ISLAND

### POTENTIAL SITE PROTECTION STRATEGY - LEGEND

SITE NAME: Big Break Complex  
SITE NUMBER: 2-740

-  Surface Boom
-  Path of Oil
-  Curtain Boom
-  Skimmer
-  Shoreline Oil Recovery
- Area Anchor



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# Dutch Slough East - Site Summary

2-734

-A

County: Contra Costa  
USGS: Jersey Island

GRP: Latitude 38 01 N Longitude 121 38 W  
OSPR Map: 168 Last ACP Update 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

Dutch Slough from east of Marsh Creek to Sand Mound Slough including the berm island at the mouth of Taylor Slough, Emerson Slough, and the south fork of Dutch Slough. Rip-rapped channel with many berm islands. Portions are very developed with private docks.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

Marshy-riparian areas in this site are "A" priority at all times.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

There is emergent marsh on numerous channel islands in this stretch. Some of the levees, though heavily ripped, have well developed shrub-scrub riparian habitat.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

migratory waterfowl in marsh areas  
Rare: Mason's Lilaeopsis (S0  
Category 2: Suisun Marsh aster (F)

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
E	John Gennrich	Bethel Island MID	(510) 254-7238	
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-734 -A Dutch Slough East - Site Strategy

County: Contra Costa

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 01 N

Longitude  
121 38 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

Dutch Slough from east of Marsh Creek to Sand Mound Slough including the berm island at the mouth of Taylor Slough, Emerson Slough, and the south fork of Dutch Slough.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Primary concern is stopping oil from spreading from San Joaquin to inner Delta. Secondary concerns are oiling of emergent marshes along margins and on channel islands and penetration of oil into riprap and into levees via animal burrows.

## SITE STRATEGIES

### Strategy 2-734.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

For product originating within this site, recover and/or stop movement of oil as close to source as possible.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Use skimmers with sufficient harbor boom in V formation (estimate 1500'6X6+) to recover oil as close to source as possible, most likely at the bridge or on either side of the tule island at the confluence of Taylor Slough and Dutch Slough. Use more than one skimmer if necessary on both sides of island or bridge. Wrap channel islands with protective boom (additional 4000' swpboom).

### Strategy 2-734.2

(USCG Strategic Objective: 5,6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

For oil threats from Big Break side, deploy multiply collection/exclusion booming to collect at Jersey Isl land skimming sites.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 600'6X6+ exclusion/collection boom from south bank to north bank (Jersey Isl levee) for land-based skimming. Use 2-3 mid boom anchors to keep boom from lapsing into a catenary curve and encouraging entrainment. Back with sorbent boom if there is oil entrainment. Repeat as necessary.

### Strategy 2-734.3

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

If oil is threatening from Sand Mound Slough, boom off mouth to exclude.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 700'6X6+ exclusion boom across mouth at Sand Mound Slough. If oil is escaping, back with second layer of boom at a more favorable angle or back with sorbent boom.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-734.1		1500		2/22+/danforths & Stakes		1/1	SPS			3 SKIMMER, 4	skimming	5
2-734.2		600		5/25lbs/danforth anchors		1/0	portable & VT	1		5	skimming & checks	5,6
2-734.3		700		3/25lbs/anchor		1/1				5 PERSON	occasional checks	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Several private levee roads provide limited access to island margins. Access is primarily by boat from marinas on Bethel Island or Antioch.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
LEVEE ROAD ARE MOSTLY ALL WEATHER/VEHICLE

### WATER LOGISTICS:

Access limitations: depth, obstructions: WATERS ARE GOOD EXCEPT AT MARGINS

Boat Launching, Loading, Docking Many boat launch and marine support facilities are available on Bethel Island or in Antioch.  
and Services Available:







### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

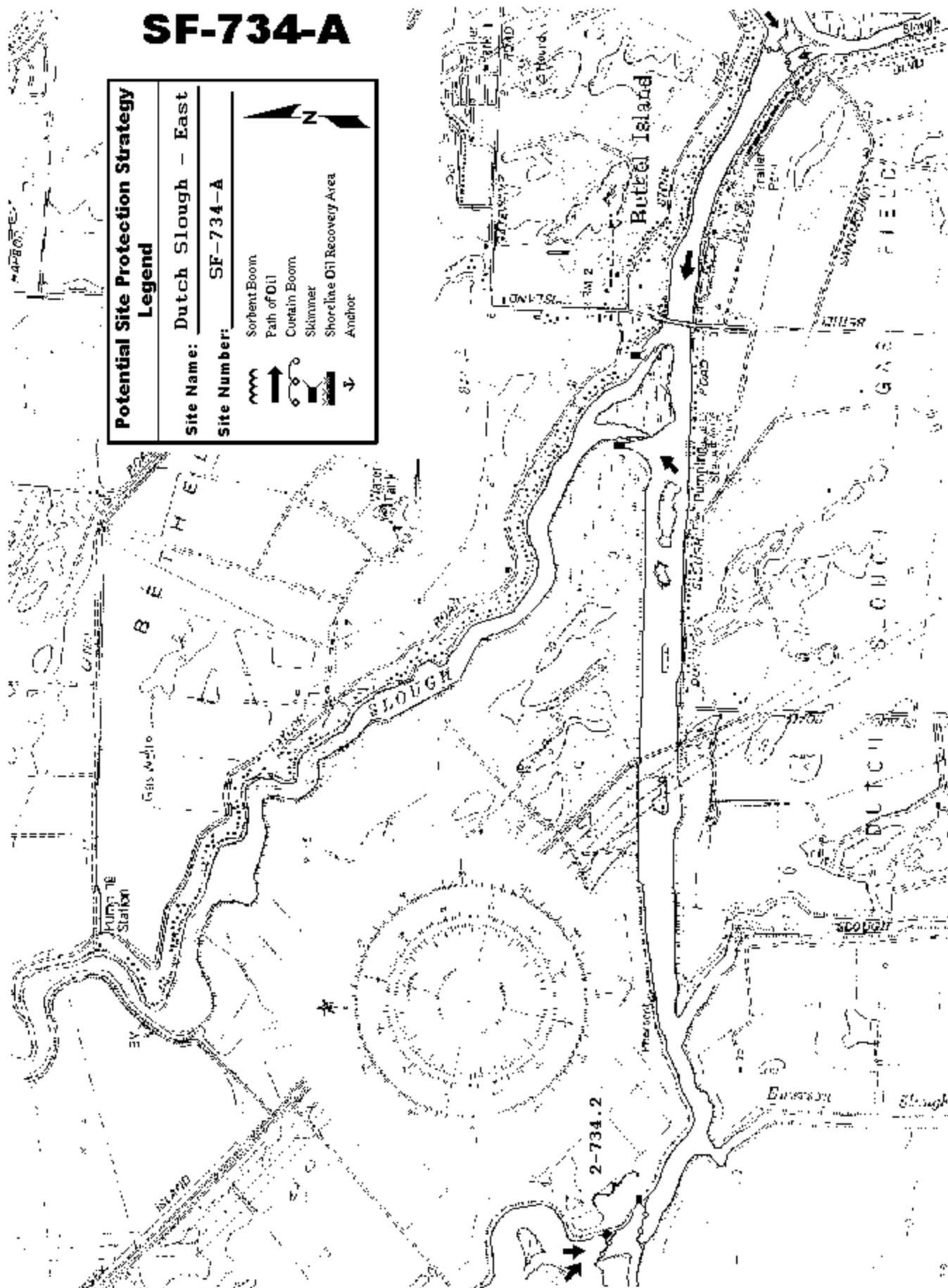
There are complete facilities/though limited facilities on Bethel Island. Brentwood, Oakley and Antioch have complete range of facilities. The Delta Sportsmen's Club house on Bethel Island may be adequate for a small IC Center.

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# SF-734-A

Potential Site Protection Strategy Legend	
Site Name:	Dutch Slough - East
Site Number:	SF-734-A
	Sorbent Boom
	Path of Oil
	Curtain Boom
	Skimmer
	Shoreline Oil Recovery Area
	Anchor



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# False River - Site Summary

2-735

-C

County: Contra Costa  
USGS: Jersey Island

GRP: Latitude 38 03 N Longitude 121 40 W  
OSPR Map: 168 Last ACP Update 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

This waterway is bounded by Bradford Island on the north bank and Jersey Island on the south bank. This site begins at its confluence with the San Joaquin River and ends at the mouth of Piper Slough. This is a main tidal waterway of the central-south delta. The channel is rip-rapped. Channel is steep and deep, and flows are strong and tidal.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

This channel has marshy habitat along shore. The water column is habitat for fish.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

Endangered: Winter-run Chinook salmon smolts (09-05) (F,S); Threatened: Delta smelt juveniles (F,S); Striped Bass may use area to spawn but not yearly.

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-735 -C False River - Site Strategy

County: Contra Costa

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 03 N

Longitude  
121 40 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This waterway is bounded by Bradford Island on the north bank and Jersey Island on the south bank. This site begins at its confluence with the San Joaquin River and ends at the mouth of Piper Slough.

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Primary concern is transportation/spread of oil to interior Delta from the San Joaquin by the strong tidal currents. This is a key site for potential oil spread. Oiling of levees and banks is secondary.

### SITE STRATEGIES

#### Strategy 2-735.1

(USCG Strategic Objective: 5,7 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Deter oil from entering False River from the San Joaquin using deflection/exclusion booming at the mouth.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy deflection/exclusion boom at the mouth by setting 2400'8x8+ boom in a shallow chevron "V" configuration. Anchor at apex and mid-boom legs to minimize entrainment. Set 500'8X8 deflection boom upstream from mouth to redirect oil into main channel away from mouth. Deploy 400'8X8+ collection boom downstream to intercept oil moving toward the mouth near the banks of Jersey Island and execute land-based skimming. Pump recovered oil to vac truck on Jersey Island shore.

#### Strategy 2-735.2

(USCG Strategic Objective: 5,6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Intercept oil which has entered False River using exclusion-collection booming and free skimming.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

When oil is likely to enter False River, deploy 2 or more collection-exclusion booms inside the channel using a long diagonal (1500'8x8+) to the most favorable location for land-based skimming (Jersey shore has best land access and current seem to eddy a little at southeast margin); these deployments will require 2-4 mid-boom anchors to counter catenary tendency and resultant entrainment. Operate self propelled skimmer(s) behind these intercepts to catch by-pass. If this interception fails, deploy two layers of

### Table of Response Resources

strategy	hboom swpbm xboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-735.1	3400	1/50 & 10/25lbs/danforth + chain		4/4	portable & VT	1 extra anchor line.	20 WATER/4	skim & check often	5,7
2-735.2	3000	6/50lbs & 6/25lbs/danforths		4/2	portable & VT	2 1000' anchor lines	10 WATER / 4	10 skimming persons	5,6

### LOGISTICS

#### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Access is primarily by boat from marinas on Bethel Island and at Antioch. Private levee roads provide limited access to island margins. The north levees (Bradford Island and Webb Tract) are accessible only by ferry.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
LEVEE ROADS GOOD WHEN DRY

#### WATER LOGISTICS:

Access limitations: depth, obstructions: GOOD WATER THROUGHOUT

Boat Launching, Loading, Docking Boat launch and marine support at Antioch, Bethel Island and mouth of Mokelumne. Launch at and Services Available: Brannon Island State Park.

#### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

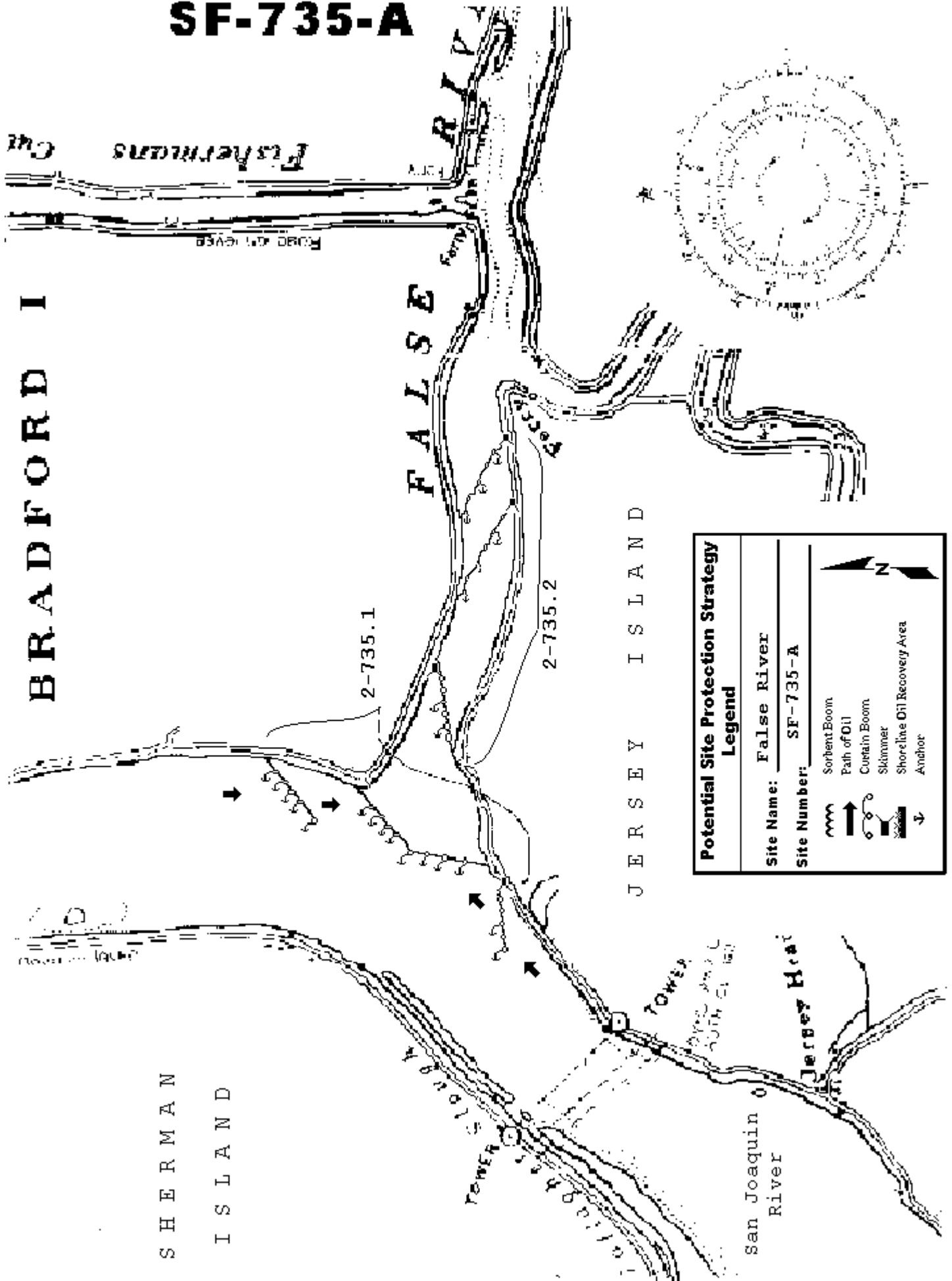
Complete support facilities at Antioch and Brentwood. Lesser degree at Bethel Island and Oakley. Also support facilities at Mokelumne River. Staging is possible at Brannon Island, Mokelumne, Bethel Island, and Antioch.

**COMMUNICATIONS LIMITATIONS / PROBLEMS:** No Problems Radio Pager Cell phone

#### ADDITIONAL COMMENTS

# SF-735-A

## BRADFORD I



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# Taylor Slough and West Piper Slough - Site Summary

2-736

-B

County: Contra Costa  
USGS: Jersey Island

GRP: Latitude 38 02 N Longitude 121 40 W  
OSPR Map: 168 Last ACP Update 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

This site includes Taylor Slough from its confluence with Dutch Slough (not including the berm island at the confluence) to Piper

Slough confluence with False River to southeasterly tip of Little Franks Tract. This is a winding, relatively narrow, ripped channel

with agriculture on Jersey Island bank, rural residential and private docks on Bethel Island bank, and marshy berm islands scattered

along its length. Remnant levee of Little Frank's Tract is in natural marsh and shrub-scrub.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

## RESOURCES AT RISK

HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

highly productive marsh areas

SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

Rare: Mason's Lilaepsis (S) and Category 2: Suisun Marsh aster (F)

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
E	John Gennrich	Bethel Island MID	(510) 254-7238	
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-736 -B Taylor Slough and West Piper Slough - Site Strategy

County: Contra Costa

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 02 N

Longitude  
121 40 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site includes Taylor Slough from its confluence with Dutch Slough (not including the berm island at the confluence) to Piper Slough confluence with False River to southeasterly tip of Little Franks Tract.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Riprap poses slip, trip and fall hazards.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Primary concerns are oiling of marshy margins and penetration into levees though riprap and animal burrows.

## SITE STRATEGIES

### Strategy 2-736.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

For local spills, halt oil movement at the source and recover as close to source as possible. Prevent further spread in slough.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Use containment boom to close off uncontaminated part of Taylor Slough. Recover with skimmer and vac truck from Bethel Island

### Strategy 2-736.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

If oil threat is from False River, exclusion boom mouth of Taylor, but only if False River deployments fully supplied.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 700'6X6+ boom in a shallow chevron (inverted "v") across mouth to exclude oil entry and deflect it past the mouth. This configuration requires mid-boom anchoring to maintain an apex. Place 4X4 or sorbent boom across channels at Piper mouth on Frank's Tract and across both channels at intersection of Taylor and Piper Sloughs.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-736.1	400			4/15lbs/anchors		0/1	portable "& VT	1	3 PERSON	skim & boom tending	5
2-736.2	1300			4/25lbs/danforths & stakes		1/1			5 PERSON	frequent monitoring	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Private and public levee roads of Bethel and Jersey Islands provide access to island margins. There is ready access by boats from marinas on Bethel Island, Mokelumne River, Brannon-Andrus Island and Antioch.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
PAVED LEVEE TO MOUTH, GOOD DRY LEVEE RD

### WATER LOGISTICS:

Access limitations: depth, obstructions: GENERALLY GOOD WATER

Boat Launching, Loading, Docking Boat launch and marine support at Antioch, Bethel Island and mouth of Mokelumne. Launch at and Services Available: Brannon Island State Park.

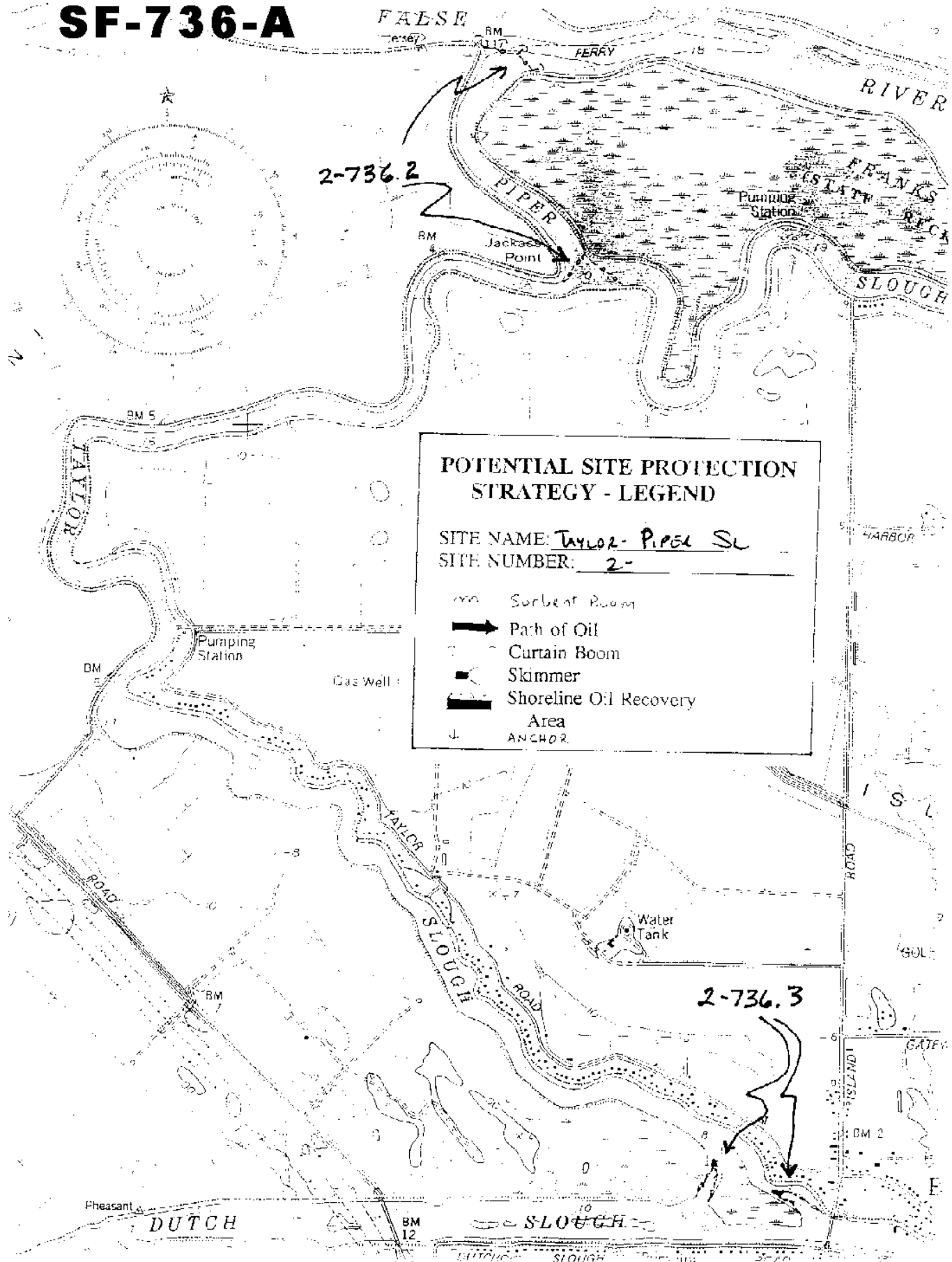
### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Complete support facilities at Antioch and Brentwood. Lesser degree at Bethel Island and Oakley. Also support facilities at Mokelumne River. Staging is possible at Brannon Island, Mokelumne, Bethel Island, and Antioch.

**COMMUNICATIONS LIMITATIONS / PROBLEMS:** No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# SF-736-A



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# Little Franks Tract - Site Summary

2-737 -C

**County:** Contra Costa  
**USGS:** Jersey Island

**GRP:**           **Latitude** 38 03 N           **Longitude** 121 39 W  
**OSPR Map:** 168           **Last ACP Update** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site is bounded on its west and south side by Piper Slough. False River bounds the north side. The water of Franks Tract is on the east side. This island is a wildlife sanctuary. This is a freshwater marsh in a drowned island protected by a levee. The levees are heavily vegetated and also support wildlife.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

### **RESOURCES AT RISK**

**HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**  
Freshwater marsh and riparian shrub on levees

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Black-crowned Night heron rookery in riparian shrub-brush on levees. Migratory waterfowl  
Rare: Mason's Lilaepsis (S) and Category 2: Suisun Marsh aster and Delta Tule-pea

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

### **KEY SITE CONTACTS** - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-737 -C Little Franks Tract - Site Strategy

County: Contra Costa

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 03 N

Longitude  
121 39 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

This site is bounded on its west and south side by Piper Slough. False River bounds the north side. The water of Franks Tract is on the

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

Use care on the north side of Jersey Island Levee Road. It has sand traps.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Primary concern is escapement of oil through the site to central Delta and oiling of berm island marshes at this and neighboring sites.

### SITE STRATEGIES

#### Strategy 2-737.1

(USCG Strategic Objective: 6,7 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

If upstream strategies fail, position deflection-collection boom to strand oil on Webb tract shore for skimming.

#### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

Execute False River and Fishermans Cut strategies. Deploy 1000+ of 8X8+ collection-deflection boom from tip of Jersey Island at

Taylor Slough or other advantageous site to divert oil to Webb Tract shore for skimming.

#### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-737.1	1000			4/25lb/danforth + chain & stakes		2/1	portable & VT	1		8 ON WATER	skimmer and checks	6,7

### LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

Take hwy 4 to Bethel Island for boat launching access. Little Franks Tract can be seen from Bethel Island Levee Road; however Bethel Island Fire Department (510-684-2211) should be contacted for access through gates. Jersey Island Levee Road has public access, and Little Franks Tract can be seen from this road as well. This road ends at the Bradford/Webb Tract ferry system. See hazard section

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
GOOD LEVEE ROADS WHEN DRY

#### WATER LOGISTICS:

Access limitations: depth, obstructions: GENERALLY GOOD WATER IN CHANNELS

Boat Launching, Loading, Docking Boat launch and marine support at Antioch, Bethel Island and mouth of Mokelumne. Launch at  
and Services Available: Brannon Island State Park.

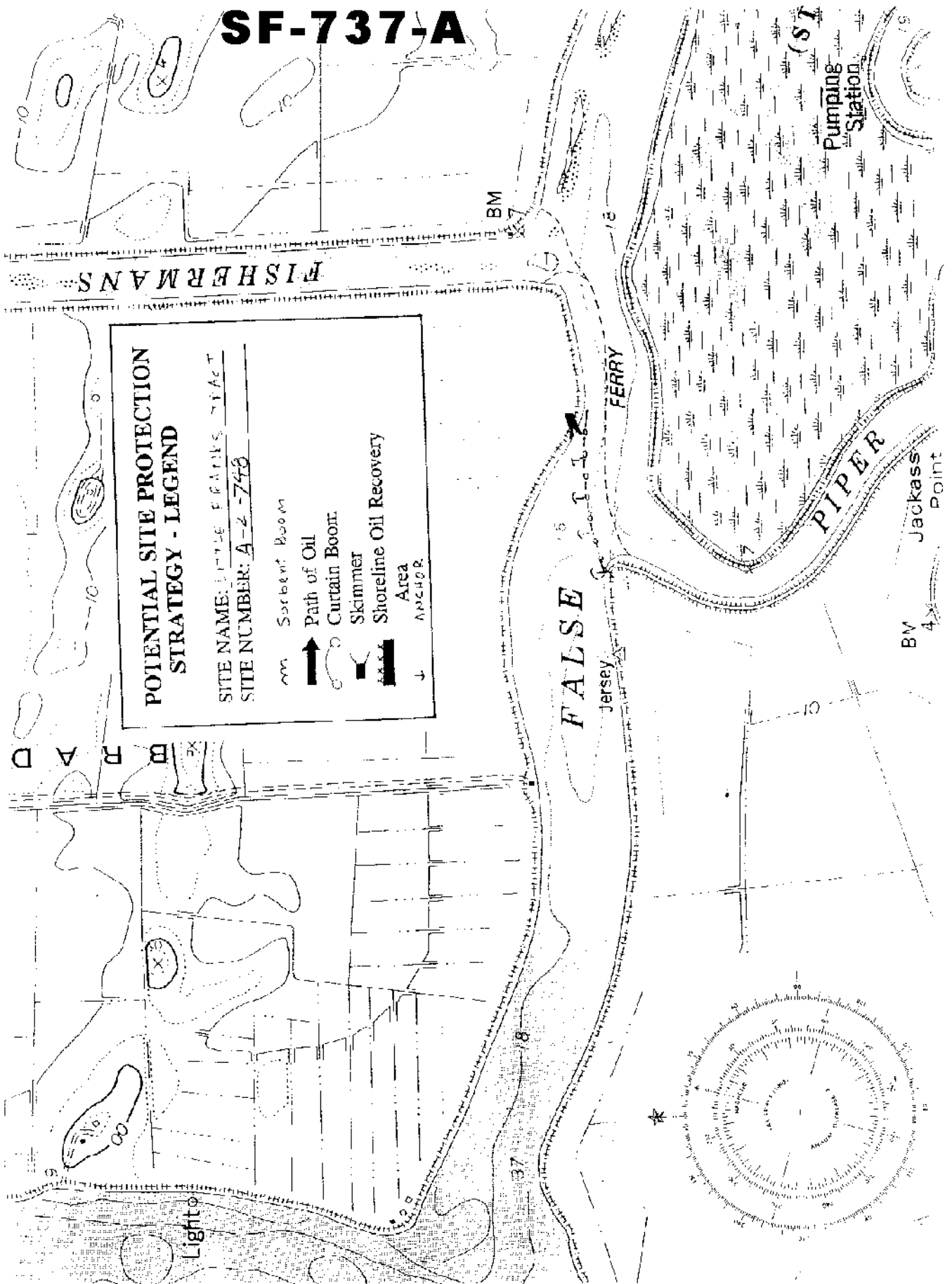
#### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Complete support facilities at Antioch and Brentwood. Lessor degree at Bethel Island and Oakley. Also support facilities at Mokelumne River. Staging is possible at Brannon Island, Mokelumne, Bethel Island, and Antioch.

**COMMUNICATIONS LIMITATIONS / PROBLEMS:** No Problems Radio Pager Cell phone

#### ADDITIONAL COMMENTS

**SF-737-A**



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# San Joaquin River, Sherman-Webb Reach - Site Summary

2-740 -B

**County:** Sacramento, Contra Costa County  
**USGS:** Jersey Island, Bouldin Island

**GRP:** **Latitude** 38 04 N **Longitude** 121 43 W  
**OSPR Map:** 168, 169 **Last ACP Update** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

River and berm islands from Old River to east end of West Island. Includes San Joaquin margins of Sherman, Twitchell, Jersey, Bradford, Bouldin, Webb, and Andrus Islands downstream from the mouth of the Mokelumne River to berms near Seven Mile Slough. This is a broad section of the San Joaquin River with heavily rip-rapped shoreline and occasional occasional berm and emergent patches particularly along Sherman Island and Webb Tract. This is deep, open water. Shores are wave-washed.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

### **RESOURCES AT RISK**

#### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

Along the heavily rip-rapped shoreline are occasional berm and emergent patches, particularly along Sherman Island and Webb Tract. Windward shores are wave-washed. This is deep, open water.

#### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Endangered: Winter-run Chinook salmon (F,S) smolts (in area 09-05); Threatened: Delta smelt (F,S) juveniles; Proposed Threatened: Sacramento Splittail (F) juveniles; Striped Bass spawn in area most years

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

### **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
E	Gilbert Labrie	Brannan-Andrus Reclamation District	(707) 374-6111	
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
E	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
E	Henry Matsunaga	Sherman Reclamation District	(916) 448-2821	
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
E	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

# 2-740 -B San Joaquin River, Sherman-Webb Reach - Site Strategy

County: Sacramento, Contra Costa

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 04 N

Longitude  
121 43 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

River and berm islands from Old River to east end of West Island. Includes San Joaquin margins of Sherman, Twitchell, Jersey, Bradford, Bouldin, Webb, and Andrus Islands downstream from the mouth of the Mokelumne River to berms near Seven Mile Slough.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Primary concern is oil spreading to barrow sloughs behind channel islands and oiling of emergent margins of the channel islands.

## SITE STRATEGIES

### Strategy 2-740.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Prevent oil from entering side channels and sloughs. Prevent oiling of vegetated islands.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deflect oil into main channels and away from vegetated islands, side channels and shorelines by deploying deflection booms from levee out into channel using deflection booms. Also, exclude oil from entering protected side channels between channel islands and levees by blocking (and backing with sorbent) openings and mouths which would admit oil. If oil is eminent threat to channel exposures of islands, then the exposed margins will need protective booming with small skirted boom or sorbent boom or both. Here are the four channel island groups in this reach and their boom requirements:

(A) islands along the Sherman Island shore (Channel markers G21-G25) - 300'6X6+deflection at each end, 900'4X4+ to close two mouths and one large opening, 9000'of 4x4+ or sorbent for shore protection;

(B) island at north end of Bradford Island (Channel markers G29-G33) - 300'6X6+ deflection boom at each end, 400'4X4+ for mouth closures, shore protection 3300'6X6+;

(C) islands at the northeast corner of Webb Tract (R38-G39) - 1000'6X6+ to close mouths and opening, 2400'6X6+ shore protection;

(D) island string around northeast corner of Webb Tract (G43-R52) - deflection at west end 500'6X6,

### Strategy 2-740.2

(USCG Strategic Objective: 6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Strand and collect oil at windfall locations along shore to reduce degree of spread and oiling.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Wherever oil is tending to collect at the shoreline as a result of wind and eddies, enhance collection by deploying collection booms and skimming operations. Most levees provide good access in all but very wet weather, for land-based skimming (alternatively shallow water skimmers could visit collection pockets).

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-740.1		14500		30/22+/danforths & stakes & line	4000		4/8		30 WATER/6	frequent patrol	5
2-740.2		2000		8/12+/danforths		1/1	portable & VT	4	6 PERSON	skimming attendance	6

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Public access roads to island margins available on Sherman and Andrus Islands. Webb Tract, Jersey, Bradford, Twitchell, Bouldin, and Venice Islands have private access levee roads to island margins. Access by boat from launch points at Brannon Island State Park, Antioch, and mouth of Mokelumne River.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
GOOD LEVEE RDS EXCEPT WHEN WET

### WATER LOGISTICS:

Access limitations: depth, obstructions: GOOD EXCEPT NEAR SHORE SHALLOW/OBSTRUCT.

Boat Launching, Loading, Docking Brannon Island State Park, Antioch, Sevenmile Slough marinas, marinas at mouth of Mokelumne and Services Available: River.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:






Staging sites are available on adjacent islands and levees. Services and facilities (water, lodging, marine service, food..) on Andrus Island near mouth of Mokelumne make that locale desirable staging area. Brannon Island State Park may serve as a C command post for

**COMMUNICATIONS LIMITATIONS / PROBLEMS:** No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS



SITE NAME: SHELMAN-WEBB LEACH  
SITE NUMBER: 2-750

	Sorbent Pallet
	Path of Oil
	Curtain Boom
	Skimmer
	Shoreline Oil Recovery Area AND/OR

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# Fishermans Cut - Site Summary

2-742 -B

County: Contra Costa  
USGS: Jersey Island

GRP: Latitude 38 05 N Longitude 121 39 W  
OSPR Map: 168 Last ACP Update 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

A north-south running channel connecting the San Joaquin River on its north end to the False River on its south end. This site is a rip-rapped channel with berm island and emergent vegetation particularly at the north end of the cut.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

Marshy island and channels in this site are "A" priority at all times.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

Marsh pockets at the riprap channel margins. Berm islands, particularly at north mouth.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

Endangered: Winter-run Chinook salmon (F,S) smolts (09-05); Threatened: Delta smelt (F,S) juveniles;  
Proposed Threatened:  
Sacramento Splittail (F) juveniles; Striped Bass spawn in area some years.

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
E	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

## 2-742 -B Fishermans Cut - Site Strategy

County: Contra Costa

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 05 N

Longitude  
121 39 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

A north-south running channel connecting the San Joaquin River on its north end to the False River on its south end.

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Primary concern is oil transport/spreading to central Delta from San Joaquin River.

### SITE STRATEGIES

#### Strategy 2-742.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### **Objective or Prevention Condition**

Prevent oil from entering from San Joaquin and protect berm islands.

#### **Technique Details**

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

To deter/prevent oil entry from the San Joaquin, deploy exclusion-deflection boom a shallow chevron (inverted V) formation outside the north mouth to prevent marsh oiling and deflect past mouth.

#### Strategy 2-742.2

(USCG Strategic Objective: 6,5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### **Objective or Prevention Condition**

If oil enters the Cut from either end, intercept, collect and skim - do not allow escape to Frank's Tract.

#### **Technique Details**

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy collection/containment boom diagonally across cut to collect at most favorable shorefall under prevailing winds. Use 750' 6X6+ boom to a land-based skimmer. Use 3-4 mid-boom anchors to maintain non-catenary configuration. Make multiple sets as necessary and back with sorbent if escapement persists.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-742.1	2000			8/22+/danforths + chain + line		3/2			15 PERSON	frequent checks	5
2-742.2		750		5/20lb/danforth + chain + line		1/1	portable & VT	1	5 WATER/ 1 LAND	skimming	6,5

### LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

Several private levee roads accessible from the private ferry on Jersey Island Road, provide levee road access to island margins.

Access is primarily by boat from marina/launches on Bethel Island, Antioch, mouth of Mokelumne, and Brannon Island State Park.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
PRIVATE LEVEE ROADS GOOD WHEN DRY

#### **WATER LOGISTICS:**

Access limitations: depth, obstructions: FAIRLY DEEP EXCEPT AT MARGINS

Boat Launching, Loading, Docking Boat launch and marine support at Antioch, Bethel Island and mouth of Mokelumne. Launch at  
and Services Available: Brannon Island State Park.

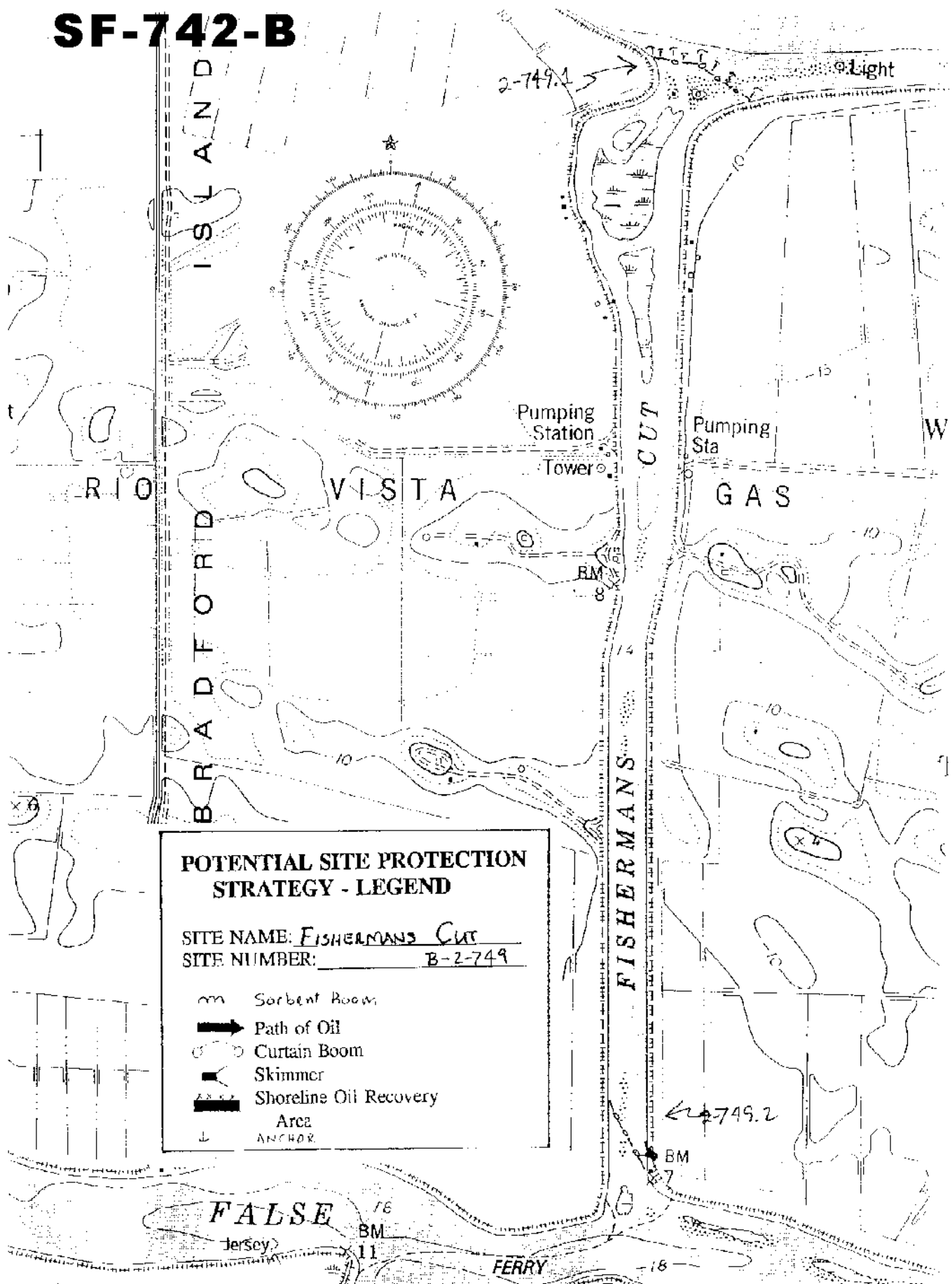
#### **FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:**

Complete support facilities at Antioch and Brentwood. Lesser degree at Bethel Island and Oakley. Also support facilities at Mokelumne River and 7-mile Slough. Staging is possible at Brannon Island, Mokelumne, Bethel Island, and Antioch.

**COMMUNICATIONS LIMITATIONS / PROBLEMS:** No Problems Radio Pager Cell phone

**ADDITIONAL COMMENTS**

# SF-742-B



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# Sevenmile Slough - Site Summary

2-743 -A

**County:** Sacramento  
**USGS:** Bouldin Island, Jersey Island

**GRP:** Latitude 38 07 N Longitude 121 39 W  
**OSPR Map:** 168 **Last ACP Update** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site includes the shallow slough between Twitchell and Andrus Islands from the Twitchell Island bridge east of Hwy 160 to the confluence with the San Joaquin River and the tule islands at the mouth of the slough on the San Joaquin River. This site is designated a natural area by Delta Master Recreational Plan. The first 1.5 miles are continuous with the San Joaquin River, while the central 3 miles is behind at flood gate. This site includes marsh along the length of the slough, particularly the eastern end. Riparian trees and shrub-brush occur on banks and berm islands. Tule islands exist at the mouth of the slough in the San Joaquin River. Area has extensive marina development.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

This marshy-riparian area is "A" priority at all times.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

Marsh and shrub-scrub line most of the channel and channel Islands. This is excellent habitat for all manner of riverine animals and fish and is good spawning habitat for Delta smelt and various warmwater fish.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

This is nesting and foraging habitat for all manner of waterfowl and marsh and riparian birds. The marsh also supports a wide diversity of marsh mammals and other riparian vertebrates.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

### **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
E	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
E	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

## 2-743 -A Sevenmile Slough - Site Strategy

County: Sacramento

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 07 N

Longitude  
121 39 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site includes the shallow slough between Twitchell and Andrus Islands from the Twitchell Island bridge east of Hwy 160 to the confluence with the San Joaquin River and the tule islands at the mouth of the slough on the San Joaquin River.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The major concern is spread of oil into the inner reaches of the slough behind river front islands and behind the flood gates: oiling of emergent marshes of islands and margins.

## SITE STRATEGIES

### Strategy 2-743.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude oil from moving into protected channels inside channel islands which front the slough mouth and protect the islands also.

#### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

Use 6X6+ exclusion boom to close all openings between channel islands and mouths to inside channel (600') and back with sorbent boom. Front the channel islands with 4X4+ protective boom or sorbent boom (3000'). Ensure a tidal seal at shore closures.

### Strategy 2-743.2

(USCG Strategic Objective: 6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

If substantial oil patches are threatening the Andrus or Twitchell Island shoreline, deploy collection and deflection booming.

#### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

If oil is moving along the shoreline, then set 200' collection booms with skimmers. Such booming will probably be needed at each end to deal with both ebb and slack tide movement. If a lot of oil is bypassing the collection, then deflect oil away from Sevenmile Slough and islands: 600'8X8+ boom anchored from shore out into channel.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-743.1	3600			8/15lb/danforth		2/2			Bboat: very shallow draft	11 WATER/3	checks only	5
2-743.2	1200			4/25lb/danforth		1/1	portable & VT		2	5 PERSON	skimming + checks	6

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Take hwy 160 to Twitchell Island levee roads. By water, the site

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
ALL SEASON/ALL TRAFFIC ROADS ON LEVEES

### WATER LOGISTICS:

Access limitations: depth, obstructions: GOOD EXCEPT SHORE SHALLOW & OBSTRUCTIONS

Boat Launching, Loading, Docking Boat launch available at Brannon Island State Park and marinas at Sevenmile Slough and mouth  
and Services Available: of Mokelumne.

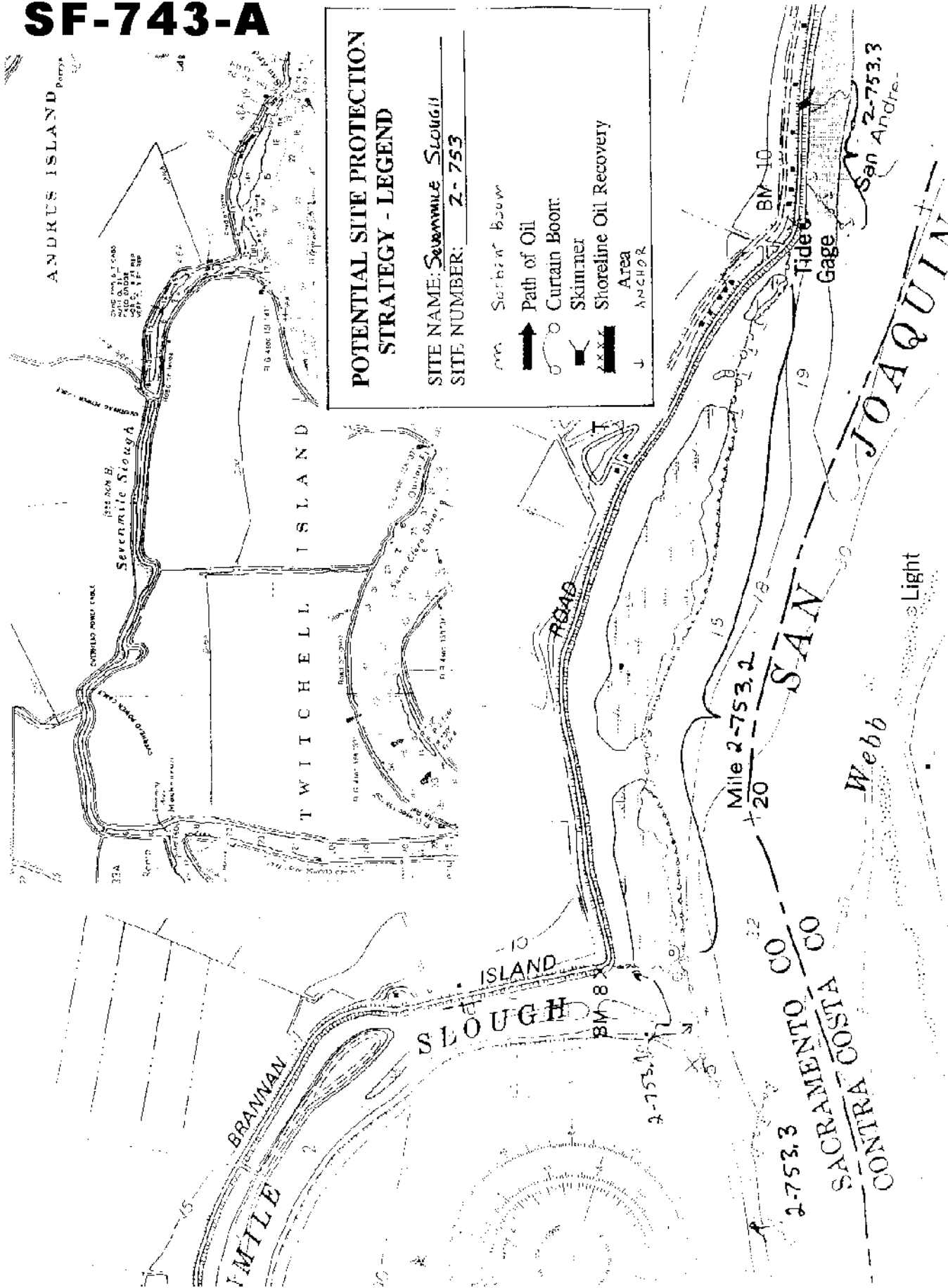
### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Brannon Island State Park is a possible IC or staging area. Diverse facilities (including space, water, power, marine support, food, sewage and some camping) at mouth of Mokelumne would support a staging area or an IC. Delta levees at site provide ready local land-water

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# SF-743-A



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# Chips Island, Southern Side - Site Summary

2-752 -A

County: Solano  
USGS: Honker Bay

GRP: Latitude 38 04 N Longitude 121 55 W  
OSPR Map: Last ACP Update 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

This site is the southerly exposure of Chips Island to Suisun Bay and all the associated interior island channels. The entire margin of the island is emergent saline marsh. Some exposed portions are eroding but most margins are accreting. There are about a dozen pockets and inlets along this two mile length. Some of these openings lead to extensive inner channels or to interiors of marshes. These are paths which, if left open, would permit widespread impacts. This is excellent marsh habitat for a wide variety of marsh species including several Special Status Species.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

The site is an "A" priority year-round. Several Special Status Species occur here.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-752 -A Chips Island, Southern Side - Site Strategy

County: Solano

CHART: SUISUN BAY 18652/18656

Latitude  
38 04 N

Longitude  
121 55 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site is the southerly exposure of Chips Island to Suisun Bay and all the associated interior island channels.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Vessels beware of submerged objects and shallows at margins.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Penetration into interior marsh channels and marshes. Oiling of emergent marshes and banks on outer margins.

## SITE STRATEGIES

### Strategy 2-752.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude oil from entering inner channels and marshes by exclusion booming of the openings of the outer levee.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Place 8x8+ curtain boom across each of the 9 openings. Anchor near shore but leave a trailing end to maintain tidal seal. Double boom or back with sorbent to catch escaping oil especially for exposures where wind chop is likely to lift oil over the boom flotation (such as west tip). There are many pilings and shallows along this margin: watercraft should be very shallow draft and capable of withstanding grounding and impacts.

### Strategy 2-752.2

(USCG Strategic Objective: 5,8 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Protect emergent marsh at east tip and pocket cove near west tip against oil penetration

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

This strategy is based on the predominant winds which blow waves away from this shore rather than onto it: if waves are from the south or southwest, larger boom (8X8+) and double booming will be necessary. Under mild wind exposures, lay 600 ft of 4x4 harbor boom across pocket cove mouth which is 1000 ft east of west end. Lay 2500 ft of 4x4 boom from east tip to west along the edge of the emergent vegetation and shore: (this protective boom should be linked to protective strategy for Spoonbill Creek east mouth). Run boom ends landward to complete a tidal seal.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-752.1	1000			20/12+/danforths & stakes		2/4			Bboat: shallow draft	14 PERSONNEL	occasional checks	5
2-752.2		3100		5/22+/anchors & stakes		3/3			Bboats: shallow draft	15 PERSON	performance check	5,8

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Site has only water access. Water access is one mile west from Pittsburg or 2 miles east of McAvoy's.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
NO VEHICLE ACCESS

### WATER LOGISTICS:

Access limitations: depth, obstructions: SHALLOW AND PILINGS

Boat Launching, Loading, Docking Launch and complete marina facilities are available at Harris' or McAvoy's Marinas 2 miles west,  
and Services Available: and at Pittsburg Marina and public ramp to east.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

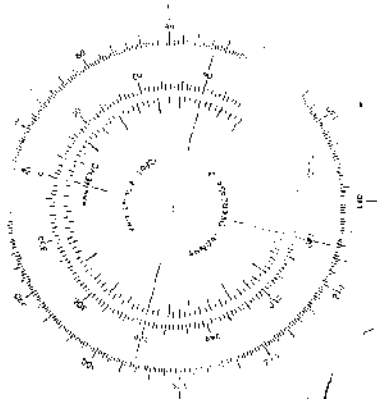
Both Pittsburg and Harris' or McAvoy's provide excellent staging or deployment sites. Diverse facilities are available at both. Security can be an issue at Pittsburg.

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

O N K E R

B A Y

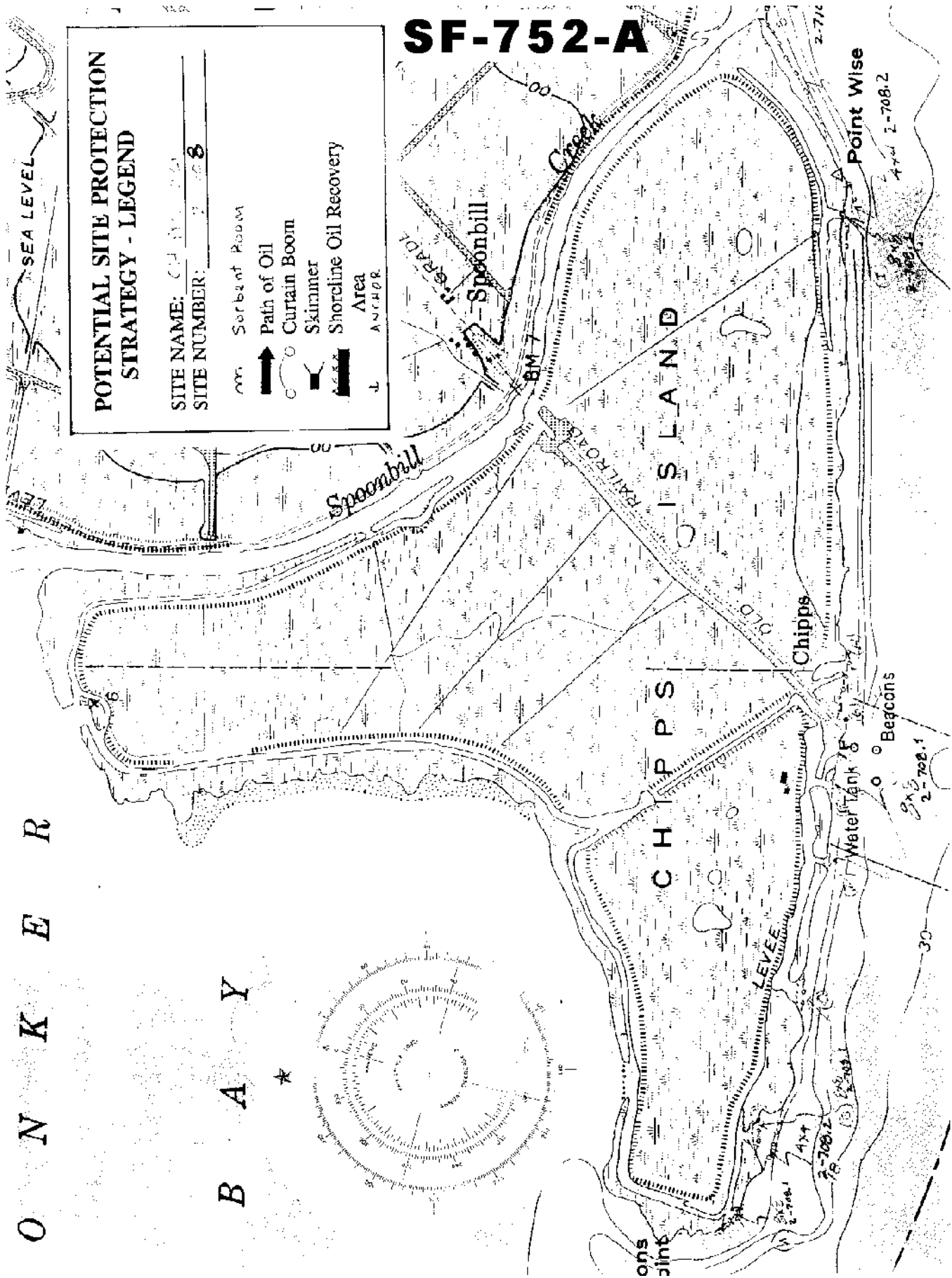


POTENTIAL SITE PROTECTION  
STRATEGY - LEGEND

SITE NAME: CHIPPIS  
SITE NUMBER: 2-708.2

- Sorbent Boom
- Path of Oil
- Curtain Boom
- Skimmer
- Shoreline Oil Recovery Area
- ANCHOR

SF-752-A



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# Spoonbill Creek - Site Summary

2-755 -A

County: Solano  
USGS: Honker Bay

GRP: 7      Latitude 38 02.0 N      Longitude 121 49.0 W  
OSPR Map: 149      Last ACP Update 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

Site extends from its easterly mouth on Suisun Bay to about mid-point and includes openings to pocket sloughs and adjacent borrow channels. This tidal channel lies between Chips Island and Van Sickel Island. It connects Honker Bay with eastern Suisun Bay.

The Creek has a strong tidal current on both ebb and flood. Expect the water to flow to the northwest, toward Honker Bay, on the ebb tide and to the southeast, toward Suisun Bay on the flood tide. The levee on the east side, Van Sickel Island, is well maintained and has a narrow dirt road on top. It may support vac trucks, although a turn around has not been identified. There are also

Eucalyptus trees on this levee that can be used to anchor boom. The easterly mouth of Spoonbill Creek is an extensive marshy area. The waterway has marshy margins with openings to a borrow channel that is separated from Suisun Bay by low marshy islands.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

The site is an "A" priority year-round. Several Special Status Species occur here.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including the following special status species: California black rail, saltmarsh harvest mouse.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
BT	Region 3 Office	Ca Dept Fish & Game	(707) 944-4400	
BTEL	Grizzly Isl W/L Refuge	Ca Dept Fish & Game,	(707) 425-3828	(707) 425-1403
BT	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
B	Chuck Armor	Ca Dept Fish and Game, Bay/Delta	(209) 944-7800	
BT	Kathy Hieb	Ca Dept of Fish and Game, Bay/Delta	(209) 942-6078	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
EL	Steve Chappell	Suisun Resource Conservation Dist	(707) 425-9302	(707) 425-4402
EL	Les Jacobson	Van Sickel Reclamation District	(510) 620-0813	

# 2-755 -A Spoonbill Creek - Site Strategy

County: Solano

CHART: Suisun Bay

Latitude  
38 02.0 N

Longitude  
121 49.0 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

Site extends from its easterly mouth on Suisun Bay to about mid-point and includes openings to pocket sloughs and adjacent borrow

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Shallow water at entrance into Spoonbill Creek, submerged obstructions likely. Wind chop to three feet possible in Suisun Bay. Strong currents in Spoonbill Creek, but no chop.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Major concern is transport and spread of oil to nearby sensitive areas including Honker Bay and marshes within Spoonbill Creek. Oil penetration of the marshes at the mouth of Spoonbill Creek is also a concern. Responders should be aware that sensitive plants and animals are present including endangered mice and small plants. Always of concern are disturbances from response: trampling of marsh vegetation, disturbing wildlife, and trampling oil into marsh sediments.

## SITE STRATEGIES

### Strategy 2-755.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1995 06/26/1998 01/01/2000  
06/26/1998

#### Objective or Prevention Condition

Exclude oil from entering the southern end of Spoonbill Creek by deploying deflection boom in the Sacramento-San Joaquin River channel just south of the creek mouth.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 3000 feet of harbor boom (boom having a freeboard of not less than 8 inches and a draft of not less than 6 inches) across the mouth of Spoonbill Creek and along the north shore of the Sacramento-San Joaquin river not less than 1000 feet either side of the creek mouth. Anchor the ends of the boom well up onto the shoreline, above the high tide line if possible. Fasten an anchor to the boom near the middle of the creek mouth pull the anchor south into the river until the boom forms a shallow, taunt "V" and set the

### Strategy 2-755.2

(USCG Strategic Objective: 5,6 )

Dates: SISRS Approved last tested ACP date  
11/06/1995 06/26/1998 01/01/2000  
06/26/1998

#### Objective or Prevention Condition

If oil is expected to enter Spoonbill Creek, deploy collection boom in the creek to divert oil to shoreside collection.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 1,500 feet of swamp boom (less than 6 inches of freeboard and less than 4 inches of draft) at a shallow angle across the creek. Anchor one end of the boom on the west side of the creek at or just outside the creek mouth. Anchor the other end of the boom 1,000 to 1,500 feet inside the creek mouth on the east bank of the creek. This is the oil collection and recovery point. The east bank of the creek is a levee with a graded road on top. Vehicle access may be possible. The shoreline should be lined with hard boom and backed with sorbent at this point, and there must be a means of placing tension on the boom (a winch or block and tackle) so it remains taught and straight. If any portion of the boom approaches an angle perpendicular to the current, oil will entrain and an second boom must then be deployed down current from the first.

### Strategy 2-755.3

(USCG Strategic Objective: 6 )

Dates: SISRS Approved last tested ACP date  
11/06/1995 06/26/1998 01/01/2000  
06/26/1998

#### Objective or Prevention Condition

Alternative/additional collection strategy to 2-755.2, is to collect oil in Spoonbill Creek with on-water skimming array.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy a vessel mounted, self propelled skimming system (SPS) or self-contained floating skimmer (SFS) in the middle of Spoonbill Creek with 500 feet of boom deployed between each bank and the skimmer in such a way as to increase the encounter rate of the skimmer and prevent oil from getting around the skimmer.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-755.1	3000'			3 - 25 lb danforth, 30' chain, 100'	500'	5/1				11	frequent checks	5
2-755.2		1500'		2	500'	2/1				6	2 people with a skiff	5,6
2-755.3	1000'			2	500'	2/1	SPS/SFS	1		3		6

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Water access from west Pittsburg. Some levee access from Van Sickle Island. Take hwy 12 to Grizzly Island Road to Van Sickle Island. Local Fish and Game warden can arrange for access over graded private levee roads.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
Van Sickle Island LEVEE ROAD

### WATER LOGISTICS:

Access limitations: depth, obstructions: DEEP EXCEPT BAR AT MOUTH

Boat Launching, Loading, Docking and Services Available: Boat launching and other vessel services are available at several locations along the south shore of the river and Suisun Bay (northeastern Contra Costa County) including Pittsburg, Antioch, and Bay Point marinas.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

There are several locations along the south shore of Suisun Bay that may be suitable for staging areas and field posts, including Pittsburg, Antioch, and Bay Point marinas. On the north shore, Collinsville has limited facilities but equipment can be loaded onto vessels there. There are moorage and docks and small amounts of support including water, phones, power and food.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

SF-755-A

V a n S I C K L E







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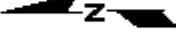
S U I S U N B A Y

C H I P P S I S L A N D

Spoonbill

Creek

<b>Potential Site Protection Strategy Legend</b>	
Site Name:	Spoonbill Creek
Site Number:	SF-755-A
	Sorbent Boom
	Path of Oil
	Contain Boom
	Skimmer
	Shoreline Oil Recovery Area
	Anchor



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# Van Sickle Island - Site Summary

2-757 -A

**County:** Solano  
**USGS:** Honker Bay, Antioch North

**GRP:** **Latitude** 38 03.5 N **Longitude** 121 53 W  
**OSPR Map:** **Last ACP Update** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site is the south margin of Van Sickle Island which fronts on Suisun Bay between Spoonbill Creek and Montezuma Slough.

This Island margin is a levee with emergent marsh on the Suisun Bay side. On the Spoonbill end there is a barrow channel behind

the front marsh which is about one third the length of the exposure (which is an important path to close to oil spread).

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including special status species.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
EL	Les Jacobson	Van Sickle Reclamation District	(510) 620-0813	

## 2-757 -A Van Sickle Island - Site Strategy

County: Solano

CHART: SUISUN BAY 18652/18656

Latitude  
38 03.5 N

Longitude  
121 53 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site is the south margin of Van Sickle Island which fronts on Suisun Bay between Spoonbill Creek and Montezuma Slough.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Potential impacts of concern include oiling of emergent marsh, oil entering small sloughs, penetration of levees via animal burrows.

## SITE STRATEGIES

### Strategy 2-757.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

Exclude oil from small sloughs and from slough behind berm island at mouth and deploy protective boom to along emergent marshes.

### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

At the east tip of the berm island (about a half mile east of Spoonbill Creek) close the inside channel with 100 ft. 6x6+ exclusion boom.

Deploy 4x4+ boom from the tip along the front of the berm island to the mouth of Spoonbill Creek. If wind chop is likely to lift oil over this boom use double booming and use larger boom. Anchor near shore and leave trailing boom ends to make a tidal seal.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-757.1	3500			8/25lb/danforths		2/1				16	performance checks	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Levee and private roads provide land access from Collinsville. By water, the site is a mile northwest from the Pittsburg Marina.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
NO LAND ACCESS

### WATER LOGISTICS:

Access limitations: depth, obstructions: SHALLOWS AND OBSTRUCTIONS COMMON

Boat Launching, Loading, Docking Boat launch is available at South Shore (Contra Costs) locations including Pittsburg, Antioch, and Services Available: and Bay Point Marinas.

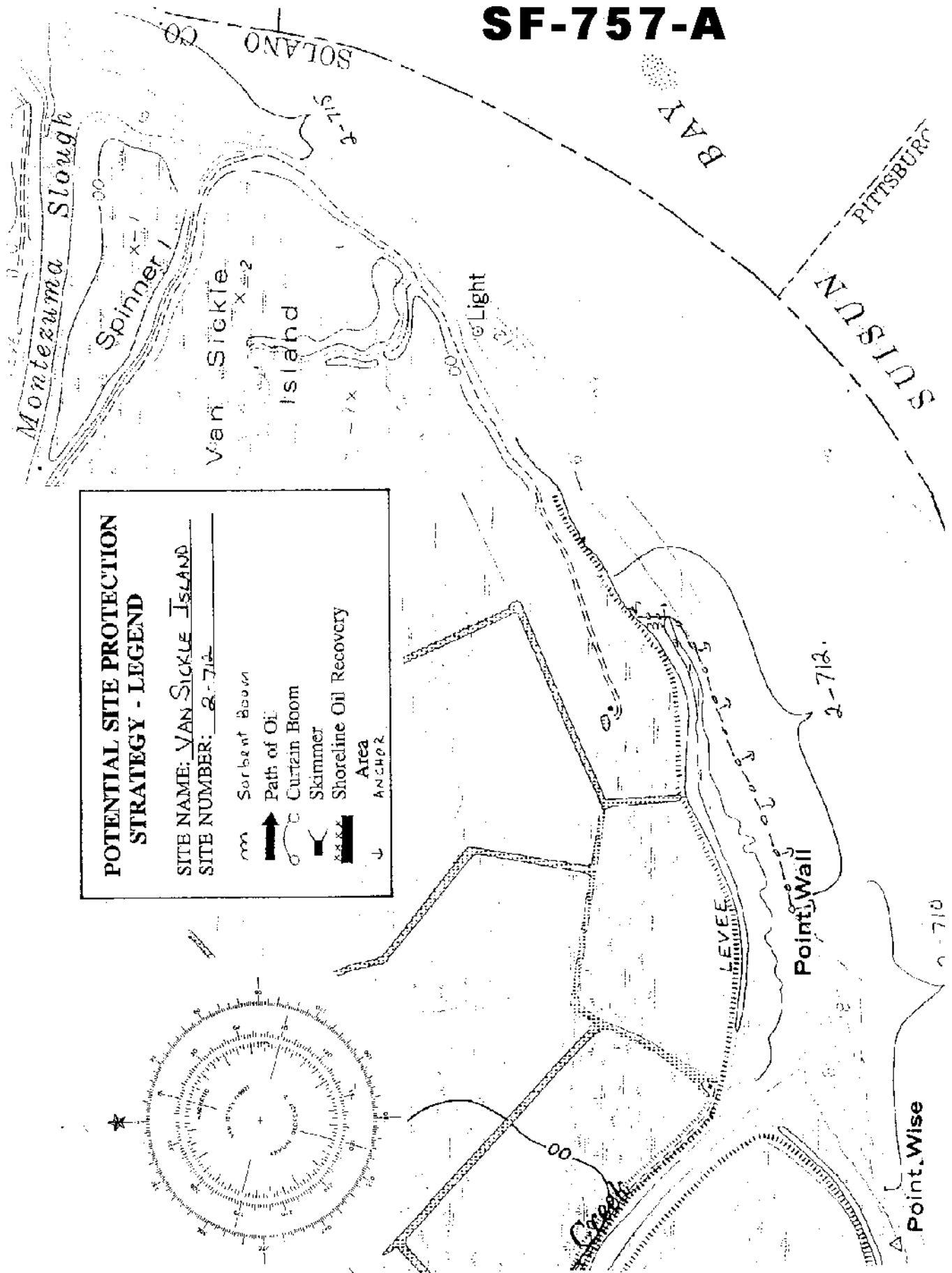
### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

There are various staging and facilities along the south shore. Collinsville has limited facilities but would be a good local deployment site. There are moorage and docks and small amounts of support including water, phones, power, and food.

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# SF-757-A



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# Montezuma Slough - East Mouth - Site Summary

2-760 -A

**County:** Solano  
**USGS:** Antioch North

**GRP:** Latitude 38 04.3 N Longitude 121 52 W  
**OSPR Map:** Last ACP Update 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site extends from the easterly mouth of Montezuma Slough about one mile to the DWR flow control structures. The Slough connects Grizzley Bay with eastern Suisun Bay and runs along the northeaster margin Van Sickle Island. There is a well developed emergent marsh at it easterly mouth, and the channel is lined with emergent marsh. There are pocket sloughs along part of its length with additional marshy habitat.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including special status species.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
OL	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
EL	Les Jacobson	Van Sickle Reclamation District	(510) 620-0813	

# 2-760 -A Montezuma Slough - East Mouth - Site Strategy

County: Solano

CHART: SUISUN BAY 18652/18656

Latitude  
38 04.3 N

Longitude  
121 52 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

This site extends from the easterly mouth of Montezuma Slough about one mile to the DWR flow control structures.

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

Shallows at margins.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Major concerns are spreading of oil to other sites and to extensive marsh margins throughout length. Penetration of oil into levees via animal burrows is also a concern.

## SITE STRATEGIES

### Strategy 2-760.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Stop oil entrainment into slough by stopping through current.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Contact Dept. Water Resource Control of the water check dam and request complete closure to stop through flow.

### Strategy 2-760.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude oil from entering mouth by configuring exclusion boom to fend oil away from mouth as to exclude.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 8x8+ exclusion boom well out from the mouth in a shallow chevron "V" to encourage oil to slide past mouth as well as to exclude entry. Run an extended boom length along the wetland to the east of the mouth. Anchor west end near the Spinner Island shore 200 yards west of mouth. Put sorbent boom across the mouth.

### Strategy 2-760.3

(USCG Strategic Objective: 5,6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Backup strategy to above exclusion if oil circumvents exclusion.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

- 1) Close mouth of inside slough at Van Sickle margin with 100' 4x4+ boom backed with sorbent.
- 2) Set 400 ft 6x6+ exclusion boom across channel near the mouth in a manner most favorable to conditions on incoming tide. Back with sorbent boom.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-760.1									contact DWR			5
2-760.2	3000			8/25lb/danforth + chain + line		3/2				13	occasional checks	5
2-760.3		500		4/25lb & 2/10lb/danforths	500	1/1				5 PERSON	performance checks	5,6

## LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

Access from the Van Sickle Island shore on private roads from Collinsville. By water, the site is a mile north of Pittsburg.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
levee roads when dry

#### WATER LOGISTICS:

Access limitations: depth, obstructions: GOOD AT MARGINS

Boat Launching, Loading, Docking Boat launch is available at South Shore (Contra Costs) locations including Pittsburg, Antioch, and Services Available: and Bay Point Marinas.

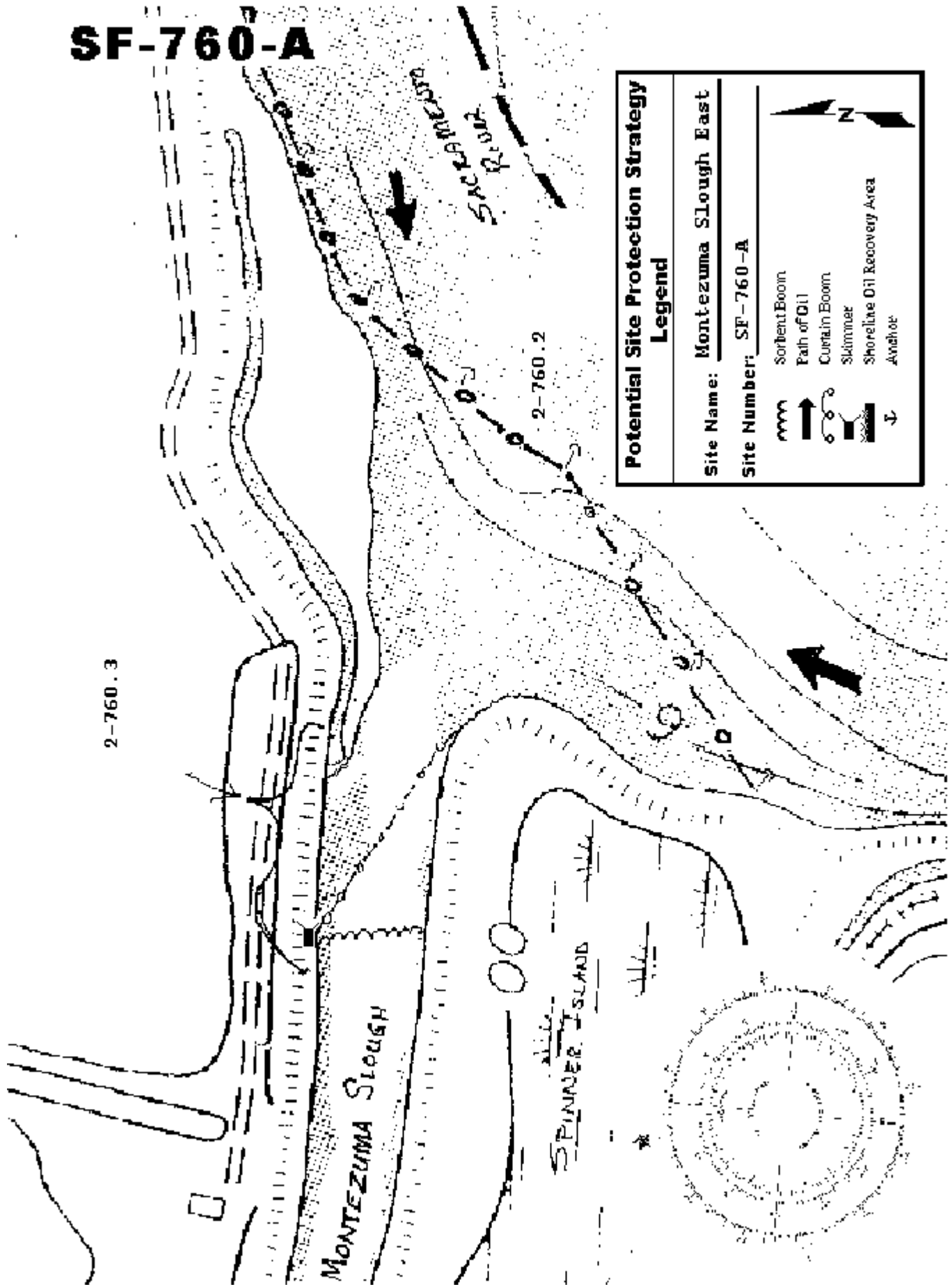
#### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

There are various staging and facilities along the south shore. Collinsville has limited facilities but would be a good local deployment site. There are moorage and docks and small amounts of support including water, phones, power, and food.

**COMMUNICATIONS LIMITATIONS / PROBLEMS:** No Problems Radio Pager Cell phone

#### ADDITIONAL COMMENTS

# SF-760-A



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# Montezuma Island and Collinsville - Site Summary

2-765 -A

**County:** Sacramento, Solano  
**USGS:** Antioch North

**GRP:**           **Latitude** 38 04.5 N   **Longitude** 121 50.5 W  
**OSPR Map:**                   **Last ACP Update** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site includes Montezuma Island and marsh margins on the Collinsville shore including Marshall Cut. Montezuma Island is high ground and unleveed. However, the margin, particularly the north margin is a wide expanse of emergent marsh. Also there are several emergent channel marshes and a well developed marsh around Marshall Cut. The westerly part of the mainland shore is ripped. West of Montezuma Island there is a long cut which runs inland to some commercial facilities and at and inside the mouth there is emergent marsh.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including special status species.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-765 -A Montezuma Island and Collinsville - Site Strategy

County: Sacramento, Solano

CHART:SUISUN BAY 18652/18656

Latitude

Longitude

38 04.5 N 121 50.5 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site includes Montezuma Island and marsh margins on the Collinsville shore including Marshall Cut.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

shallows at margins. Rip rap has slip, trip, & fall hazards.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Concern is for oiling of emergent marshes at margins of Montezuma Island and shore line northeast of Collinsville. Also be aware of penetration of oil into riprap or onto levees via animal burrows.

## SITE STRATEGIES

### Strategy 2-765.1

(USCG Strategic Objective: 7 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

At the east end of Montezuma Island, deflect oil away from mouth and exclude it from entry to north side of channel.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set exclusion boom from the east tip of Montezuma Island due east to Montezuma Island (1200 ft. 8x8+). Anchor near shore leaving trailing ends for tidal seal. At Montezuma Landing, set 2 cascading deflection booms to deflect oil away from the mouth of the channel towards the main channel.

### Strategy 2-765.2

(USCG Strategic Objective: 7 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

At the west end of Montezuma Island, deflect oil away from shoreline and close north side channel mouth.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 1000' of 8x8+ exclusion boom from the west tip of Montezuma Island due west to the opposite shore. Anchor near shore leaving a trailing boom length to ensure tidal seal. Just west of dead-end channel set deflection booms west of Collinsville (2) cascading from the shore to divert easterly moving oil back into the channel.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-765.1	2000			8/25lb/danforths		4/2			extra line	14 PERSON	regular checks	7
2-765.2	1500			8/25lb/danforths + chain + line		3/2				13 PERSONS	performance checks	7

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Land access by Collinsville Road from Hwy 12. Only water access to Montezuma Island, from Collinsville or, 1 mile North of Pittsburg.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
NO LAND ACCESS

### WATER LOGISTICS:

Access limitations: depth, obstructions: MARGINS ARE SHALLOW CHANNELS ARE DEEP

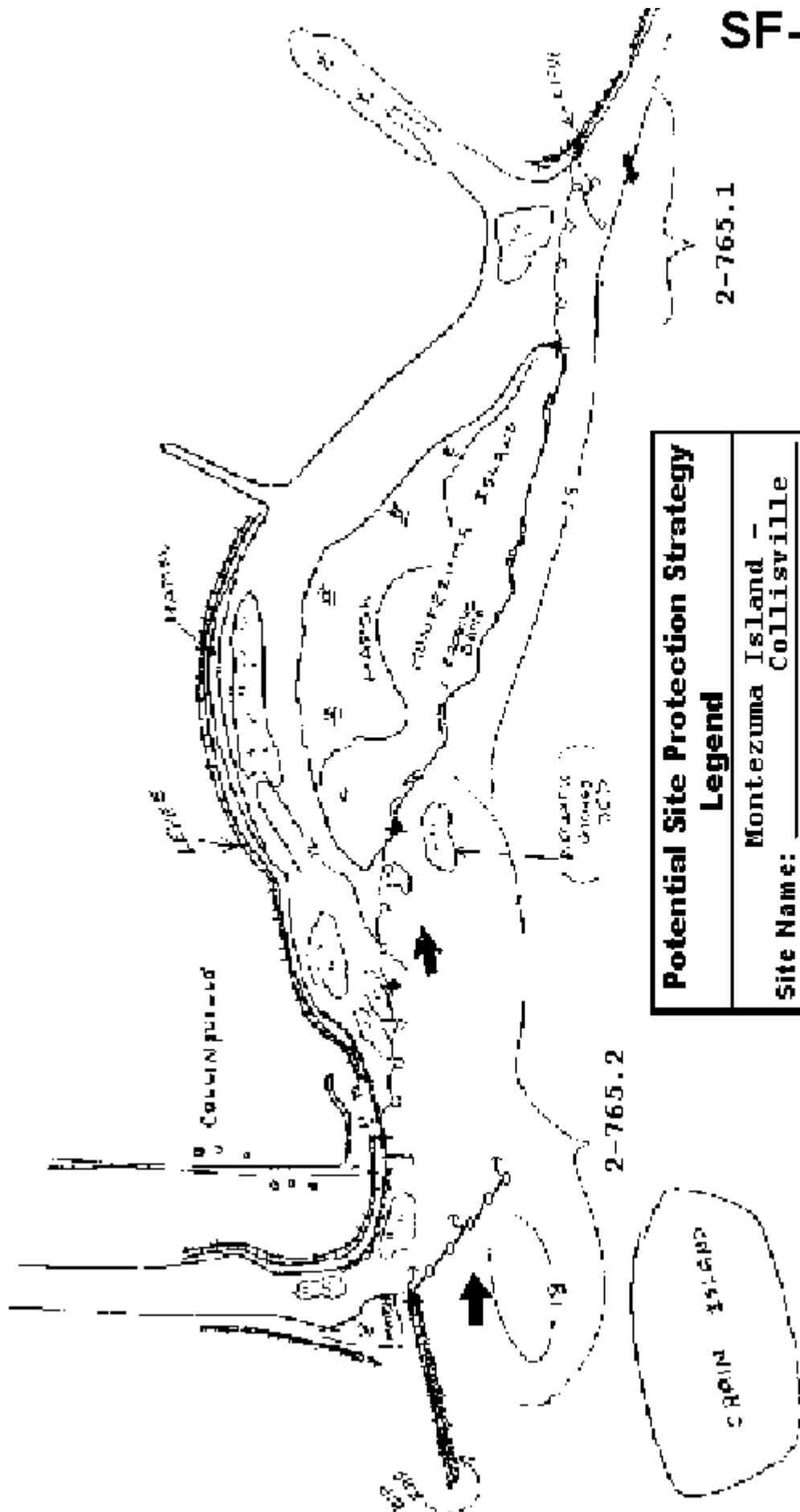
Boat Launching, Loading, Docking Boat launch is available at South Shore (Contra Costa) location including Pittsburg, Antioch, and Bay Point marinas.  
and Services Available:

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

There are various staging and facilities along the south shore. Collinsville has limited facilities but would be a good local deployment site. There are moorage and docks and small amounts of support including water, phones, power, and food.

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone







### ADDITIONAL COMMENTS



SF-765

2-765.1

2-765.2

Potential Site Protection Strategy	
Legend	
Site Name:	Montezuma Island - Collisville
Site Number:	SF-765-A
	Sorbent Boom
	Path of Oil
	Containment Boom
	Skimmer
	Shoreline Oil Recovery Area
	Anchor

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# Chain Island - Site Summary

2-770 -A

**County:** Sacramento  
**USGS:** Antioch North

**GRP:**           **Latitude** 38 04.3 N   **Longitude** 121 51 W  
**OSPR Map:**                   **Last ACP Update** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This small marshy island is located at the mouth of Montezuma Slough near the confluence of the Sacramento and San Joaquin Rivers. The island has low levees around its perimeter. However, the site is a silt accreting site and extensive mud flats surround the island and emergent marsh has extended well beyond the original margin of the island. The surrounding water is extremely shallow.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including special status species.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
BT	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-770 -A Chain Island - Site Strategy

County: Sacramento

CHART: SUISUN BAY 18652/18656

Latitude  
38 04.3 N

Longitude  
121 51 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This small marshy island is located at the mouth of Montezuma Slough near the confluence of the Sacramento and San Joaquin Rivers.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Extreme shallows.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

There are extensive tidal marshes at each end of the island. The objective is to protect marsh from oil penetration into emergent marshes AT EACH END and perimeter. Endangered species occur here: responders should minimize disturbance of marsh vegetation and avoid tracking oil into marshes and sediments.

## SITE STRATEGIES

### Strategy 2-770.1

(USCG Strategic Objective: 7 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

Fend oil away from the emergent marshes at each end and away from the Island.

### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy chevrons of curtain boom at each end of the island at about the 5 ft. depth contours to fend oil past the island. Chevrons should be 1500' on each leg and well anchored at each apex. Run sorbent or swamp boom from the tips of the chevron to shore to stop oil from getting behind the boom. Boom remaining exposed island flanks with sorbent or swamp boom.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-770.1	6000	4500		2/50 & 10/12+danforths		6/5			Bboats: very shallow draft	28 PERSON	frequent checks	7

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Water access only: site is one mile north of Pittsburg.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
NO LAND ACCESS

### WATER LOGISTICS:

Access limitations: depth, obstructions: WATER IS EXTREMELY SHALLOW

Boat Launching, Loading, Docking and Services Available: Boat launch is available at South Shore (Contra Costs) locations including Pittsburg, Antioch, and Bay Point Marinas.

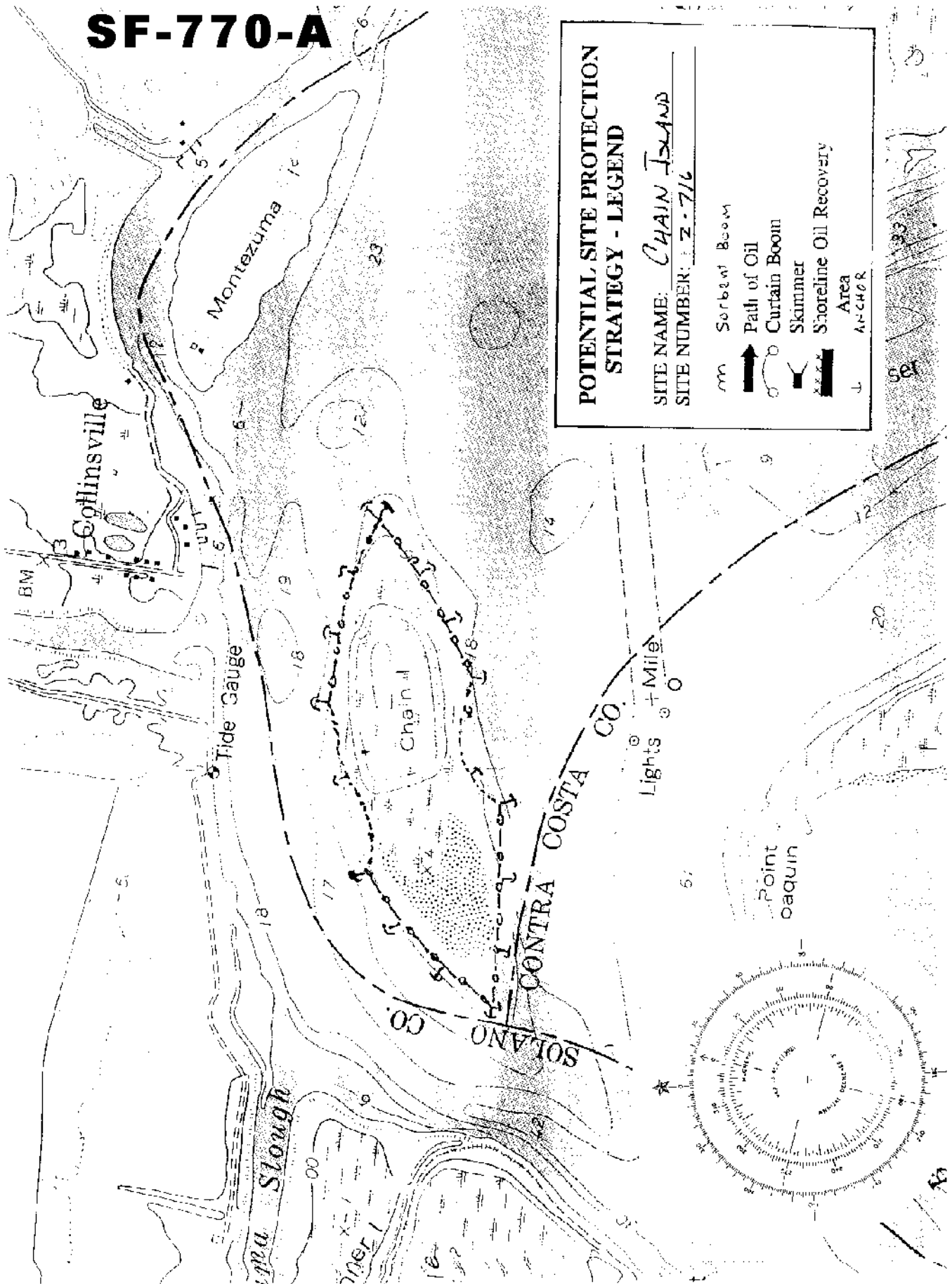
### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

There are various staging and facilities along the south shore. Collinsville has limited facilities but would be a good local deployment site. There are moorage and docks and small amounts of support including water, phones, power, and food.

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# SF-770-A



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# Lower Sherman Island - Sherman Lake Complex - Site Summary 2-780 -A

**County:** Sacramento  
**USGS:** Antioch North

**GRP:** Latitude 38 02.5 N Longitude 121 49 W  
**OSPR Map:** Last ACP Update 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site includes all of Lower Sherman Island which bounded by the Sacramento River, Mayberry Slough, Mayberry Cut, Cabin Slough and the San Joaquin River. This flooded island is a network of waterways and emergent vegetation with some well developed riparian growth on the high ground.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including special status species.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh

harvest mouse (F/CE).

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-780 -A Lower Sherman Island - Sherman Lake Complex - Site Strategy

County: Sacramento

CHART: 18661 Sacramento / San Joaquin River

Latitude  
38 02.5 N

Longitude  
121 49 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site includes all of Lower Sherman Island which bounded by the Sacramento River, Mayberry Slough, Mayberry Cut, Cabin Slough and the San Joaquin River.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

shallows and obstructions.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern here is to prevent oil from entering the interior of Sherman Lake because the interior is full of intricate shorelines and has miles of potential exposure. This would expose many species including threatened and endangered species to oil and would be extremely costly to cleanup and remediate.

## SITE STRATEGIES

### Strategy 2-780.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude oil entry to Sherman Lake from San Joaquin River by deflection - exclusion booming outside and collection booming inside.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set a shallow deflection-exclusion in a chevron "V" configuration to encourage oil to slide past the mouth. Use 300 ft. 10x10+ exclusion boom with large anchor at peak. For oil which entrains, deploy a collection boom inside. Make a continuous pocket on the inside by lining the margins and islands with 1500' of 4x4+ boom. A skimmer may be permanently assigned to occasionally sweep the

### Strategy 2-780.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

On the Sacramento River opening to Sherman Lake, deflect oil away and block entry.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil moving from the west, set two 400' 8x8+ cascading deflection booms 30 yards west of the opening. Then deploy 3000' of 8x8+ exclusion boom across the opening. A secondary layer of sorbent boom or smaller skirted boom may be necessary depending on conditions: if wind chop is likely to lift oil over boom, then the second layer will be necessary.

Also, if oil is moving down the Sacramento along the Sherman Island shore, set collection booms and skimmers along the Sherman levee upstream from Lower Sherman.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-780.1	300	1500		3/22+ & 6/12+/danforths & stakes		2/1				8 PERSON	frequent attendance	5
2-780.2	3800			12/22+/danforths & stakes		4/4			Bboat: very Shallow draft	20 WATER/ 5	frequent checks	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Land access to the north margin of the site via levee road west off of Hwy 160. By boat the site is north of Antioch.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)

GOOD AT NORTH

### WATER LOGISTICS:

Access limitations: depth, obstructions: SHALLOW AND OBSTRUCTIONS

Boat Launching, Loading, Docking Boat launching is available from south shore at Antioch or at north corner of Sherman Lake  
and Services Available: public ramp.

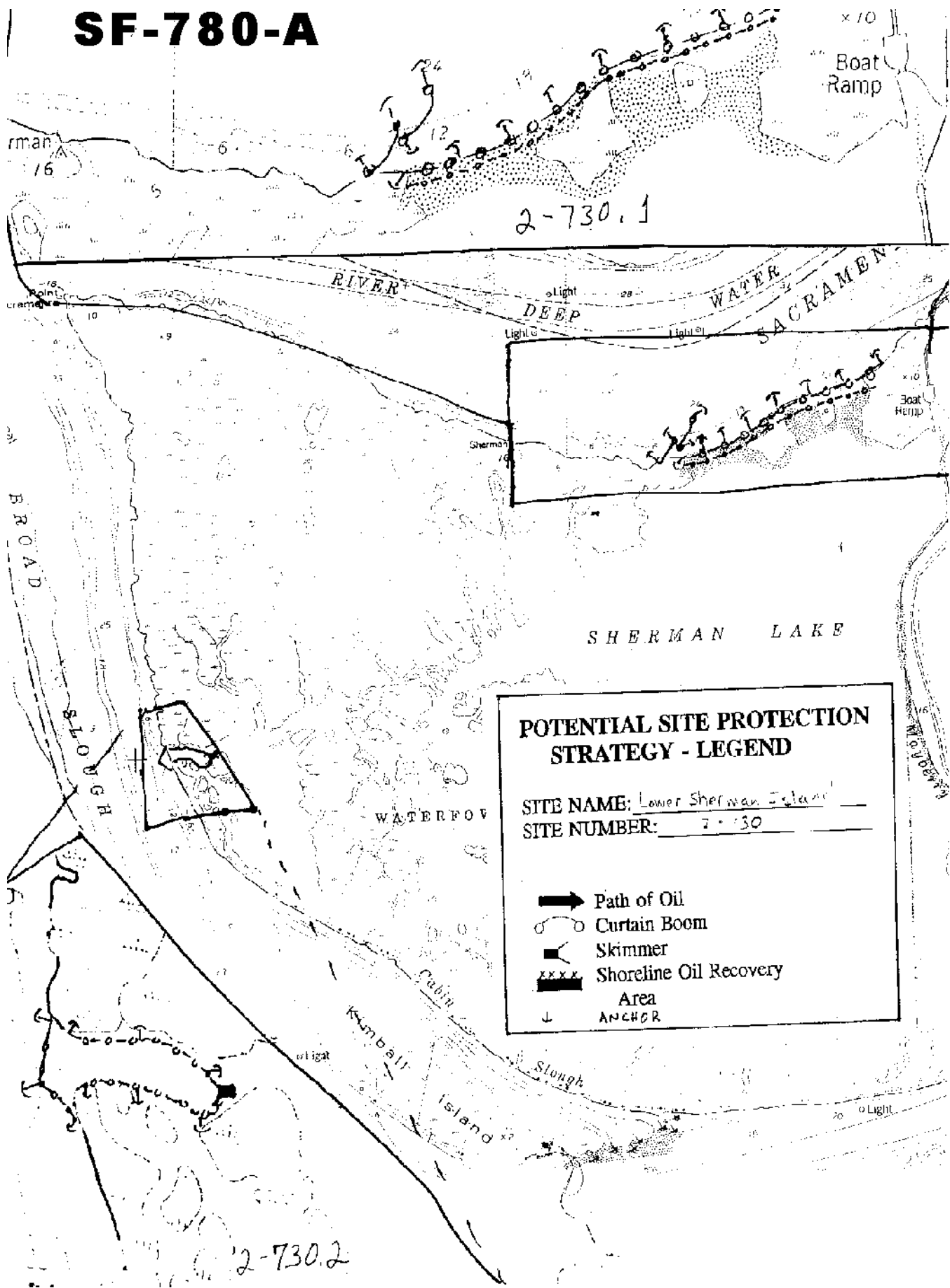
### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Good staging/deployment site to south is Antioch Marina. To the north, the Lower Sherman Island Wildlife Area launch ramp is an excellent staging/deployment area. Limited facilities including some camping are available there. Full facilities are available at Antioch.

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# SF-780-A



## POTENTIAL SITE PROTECTION STRATEGY - LEGEND

SITE NAME: Lower Sherman Island  
 SITE NUMBER: 2-730

- Path of Oil
- Curtain Boom
- Skimmer
- Shoreline Oil Recovery Area
- ANCHOR

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# Kimball Island - Cabin Slough - Site Summary

2-783 -A

County: Sacramento  
USGS: Antioch North

GRP: Latitude 38 01.5 N Longitude 121 50 W  
OSPR Map: Last ACP Update 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

This site includes Kimball Island, Cabin Slough, and channel and berm islands at each end of Cabin Slough. Kimball Island has low levees, but over half its area is unleveed and has finger channels into its emergent marshy margin. Cabin Slough has channel islands throughout its length and particularly at its east mouth. The water in Cabin Slough is relatively navigable but only the north channel has a safe east exit. Both ends of Kimball island are very shallow.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

The site is an "A" priority year-round. Several Special Status Species occur here.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including special status species.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-783 -A Kimball Island - Cabin Slough - Site Strategy

County: Sacramento

CHART: 18661 Sacramento & San Joaquin River

Latitude  
38 01.5 N

Longitude  
121 50 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

This site includes Kimball Island, Cabin Slough, and channel and berm islands at each end of Cabin Slough.

Shallows, obstructions, sunken craft.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Major concerns are spreading of oil to marshes of Cabin Slough and penetration of oil into emergent marshes and channels at each end of Kimball Island.

### SITE STRATEGIES

#### Strategy 2-783.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### **Objective or Prevention Condition**

Exclude oil entry at westerly end of Cabin Slough - wind chop is a problem here.

#### **Technique Details**

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy exclusion boom at a very acute angle to wind across the westerly mouths. Deploy 1500' 8x8+ exclusion boom from the west tip of Kimball Island northwesterly to the Sherman Island shore. Mid-reach anchoring will be necessary for effective configuration.

Be sure to provide a near shore seal. Back with sorbent.

#### Strategy 2-783.2

(USCG Strategic Objective: 7,8 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### **Objective or Prevention Condition**

Protect marsh at west end of Kimball Island and fend oil past.

#### **Technique Details**

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

From the mid-length anchor of the above boom, deploy a double boom (one 6x6+ with a second layer of 4x4+) on a 3000' perimeter of the west tip marsh. Ensure a tidal seal a east boom ends.

#### Strategy 2-783.3

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### **Objective or Prevention Condition**

Exclude oil at east end of Kimball Island, from penetrating marshes, channels, pockets and Cabin Slough

#### **Technique Details**

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy a 8x8+ exclusion boom from the east tip of Kimball Island near Old Levee, 3500' easterly following the 10 ft. depth contour to the Sherman Island Bank. As oil impacts site watch carefully to assess need for backup exclusion booming across slough mouths.

Put sorbent boom across slough mouths.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-783.1	1500			4/50lb/danforths & stakes	500	3/3			Bboats: very shallow draft	15	frequent checks	5
2-783.2		6000		8/25lb/danforth & stakes		6/6				30	frequent checks	7,8
2-783.3	3500			8/25lb/danforths & stakes	600		6/6		bbot: very shallow draft	30 WATER /5	frequent checks	5

### LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

There is no land access. The site is across the river from Antioch.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
NO LAND ACCESS

#### **WATER LOGISTICS:**

Access limitations: depth, obstructions: SHALLOWS AND OBSTRUCTION

Boat Launching, Loading, Docking Launch at Antioch marina and public launch.  
and Services Available:

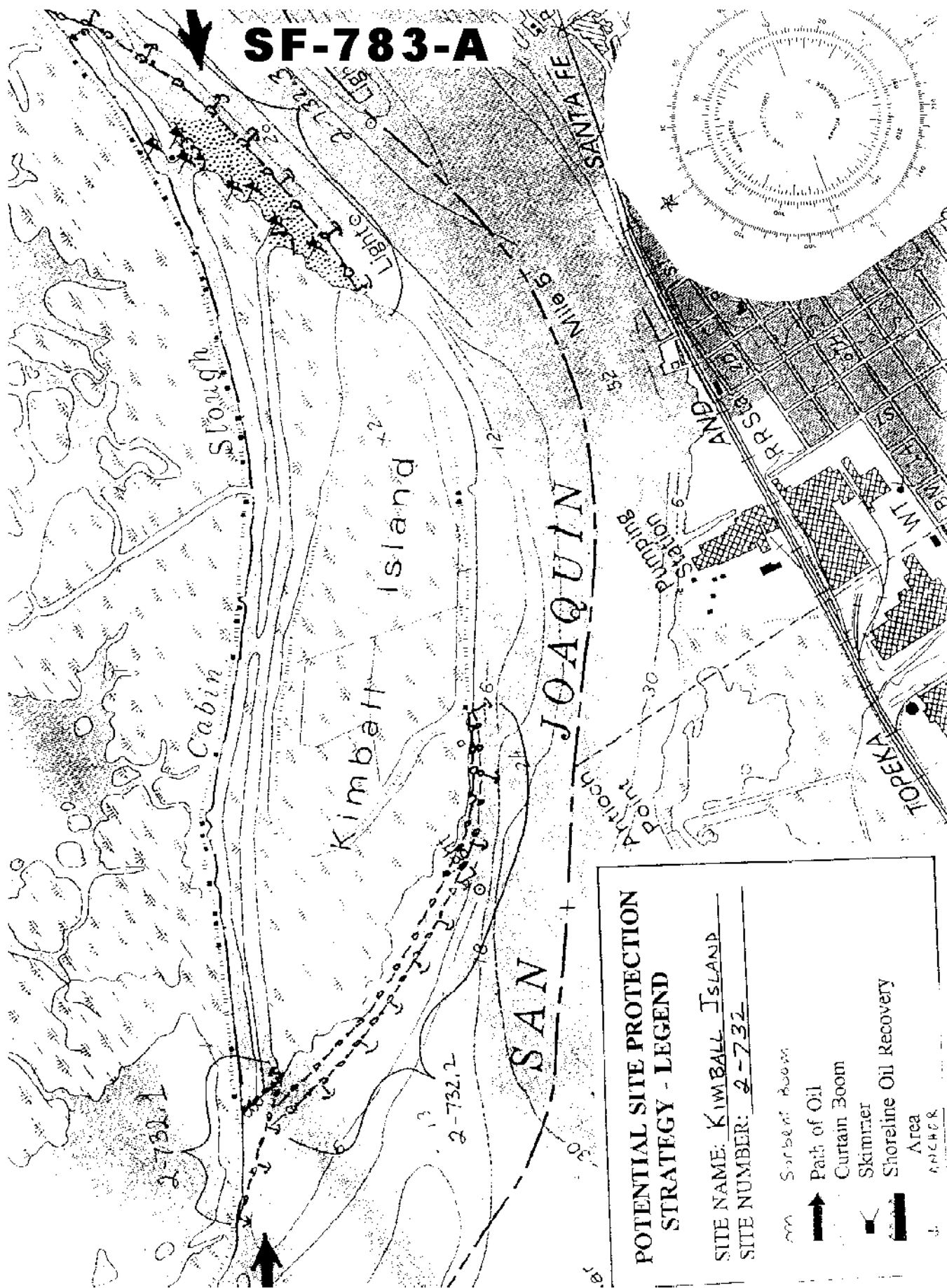
#### **FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:**

Staging and facilities are available at Antioch Marina or Pittsburg waterfront.

#### **COMMUNICATIONS LIMITATIONS / PROBLEMS:**

No Problems Radio Pager Cell phone

#### **ADDITIONAL COMMENTS**



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# Mayberry Slough - Donlon Island - Site Summary

2-786 -A

**County:** Sacramento  
**USGS:** Antioch North

**GRP:**           **Latitude** 38 02 N           **Longitude** 121 46.5 W  
**OSPR Map:**                   **Last ACP Update** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site is located a mile west of the Antioch Bridge and includes Donlon Island, Mayberry Slough and Mayberry Cut. Donlon Island is a flooded island which has emergent marshes mingled with many meandering channels. It has three major openings to the main channel which it borders on the south side. Mayberry Slough separates this island from Sherman Island to the north and Mayberry Cut is a parallel channel which separates Donlon Island from Lower Sherman Island (Sherman Lake). Both channels are fringed with emergent marsh and have channel islands. Currents here tend to be from the San Joaquin into these waterbodies on the ebb only.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority year-round. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

This extensive saline-fresh marsh system is good habitat for marsh birds and mammals of all kinds including special status species.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

This is nesting and foraging habitat for all manner of waterfowl and marsh birds including the Special Status Species: California black rail (FSC/CT).

The marsh also supports a wide diversity of marsh mammals and other vertebrates including Special Status Species: saltmarsh harvest mouse (F/CE).

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-786 -A Mayberry Slough - Donlon Island - Site Strategy

County: Sacramento

CHART: 18661 Sacramento & San Joaquin River

Latitude  
38 02 N

Longitude  
121 46.5 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site is located a mile west of the Antioch Bridge and includes Donlon Island, Mayberry Slough and Mayberry Cut.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Shallows and obstructions at the margins and interior of the island.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The major concern is spreading of oil from the San Joaquin to interior marshes of Donlon Island and Lower Sherman Island (Sherman Lake). This is of great concern on the ebb tide when strong currents are induced into Donlon's Mayberry.

## SITE STRATEGIES

### Strategy 2-786.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude oil from entering Mayberry Cut on the ebb tide using deflection-exclusion booming.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 2 300 ft. 8x8 deflection booms in series to the east of Mayberry Cut. Run a 200 ft. exclusion boom from the west side of Mayberry Cut (just west of levee break) to connect with the nearest deflection boom to form a chevron exclusion. Back with a diagonal 4x4+ boom and sorbent boom.

### Strategy 2-786.2

(USCG Strategic Objective: 5,6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

On the EBB: Exclude and collect oil at Mayberry Slough mouth by deflection on outside and exclusion collection inside.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 1200 ft. of deflection boom outside mouth from east side of mouth. Inside mouth line the margin to create a collection pocket at the north end of the pocket. Set up a land-based skimmer on the Sherman Island levee. To the west of this catchment deploy a 400 ft diagonal 4x4 collection exclusion boom to feed a second land skimming position on the Sherman Island levee. Back with sorbent.

### Strategy 2-786.3

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude oil entry to interior of Donlon Island through breaks in southern levee, using shallow deflection-exclusion configuration

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

There are 3 openings. Each should be protected by exclusion-deflection shallow chevron "V" boom configurations. Openings will require about 550, 100 and 350 ft and each configuration will require a secure anchor at apex to form the chevron. Each must have a backup of sorbent. Exposed marsh front must be protected with 4x4+ boom or sorbent.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-786.1	800	150		7/22+ & 2/12+lb/danforths		1/1				5 PERSON	checks	5
2-786.2	1200	2000		5/22+ & 8/12lb/danforths		2/1	protable & VT		1 Bboats: shallow water	12	skimming and checks	5,6
2-786.3	1000	4500		10/22+/danforths & stakes & line	1000	3/3				19 PERSONS	checks	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

There is land access to the northerly margin of this site on the adjacent levee of Sherman Island. By water, the site is northeast of Antioch about a mile from the public launch ramp.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal...locked gates)  
DRY LEVEE ROAD NORTH

### WATER LOGISTICS:

Access limitations: depth, obstructions: MARGINS OBSTRUCTIONS & SHALLOWS, DEEP CH

Boat Launching, Loading, Docking Boat launch and marine facilities are readily available at Antioch Marinas. There is also the and Services Available: WCB public ramp at Sherman Island.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

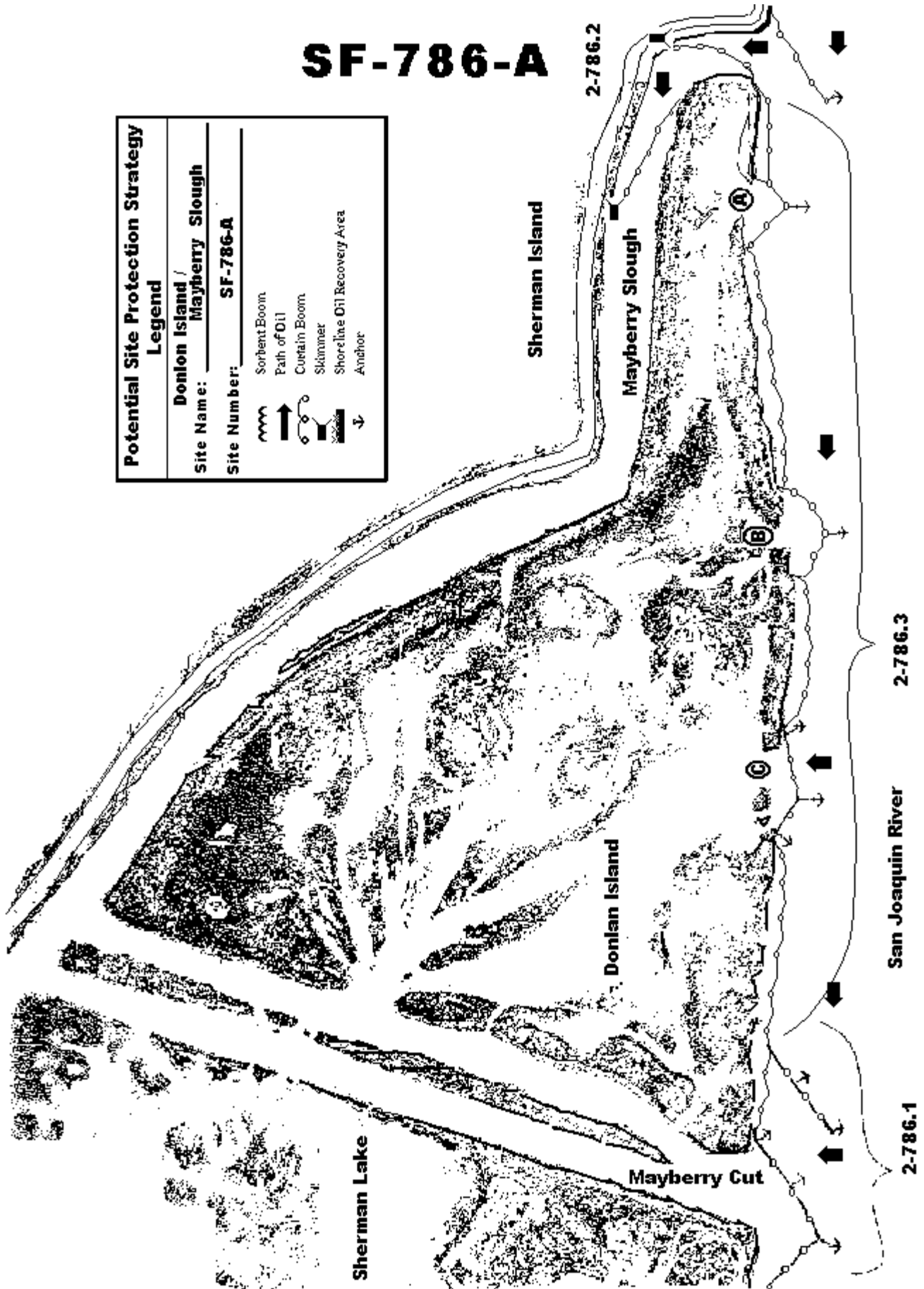
There are limited facilities and camping at Lower Sherman Wildlife Area. All manner of services are available at Antioch. Good deployment sites include Sherman Island Levee, Antioch Marina, Antioch Public Ramp, and PG&E Park.

COMMUNICATIONS LIMITATIONS / PROBLEMS: No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# SF-786-A

Potential Site Protection Strategy Legend	
Donlon Island / Mayberry Slough	
Site Name:	SF-786-A
Site Number:	
Sortent Boom	↑
Path of Oil	→
Curtain Boom	↖
Skimmer	⊥
Shoreline Oil Recovery Area	⬇
Anchor	⬇



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# West Island - Site Summary

2-789 -A

**County:** Sacramento  
**USGS:** Antioch North

**GRP:**           **Latitude** 38 02 N           **Longitude** 121 49 W  
**OSPR Map:** 149                   **Last ACP Update** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This island is east of the Antioch Bridge and across the San Joaquin River shipping channel from Donlon Island. This is a partially leveed island. The west end of the island is marshy, and the perimeter of the island is tule marsh. Some riparian shrub growth exists on the island.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

This marshy area is "A" priority at all times.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

Extensive marshy margins and interior marsh on western half of island.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Migratory waterfowl.

Submergent and emergent vegetation are spawning habitat for Delta smelt, Longfin smelt, and Sacramento Splittail. Proposed

Threatened: Longfin smelt, Sacramento Splittail (F), Delta smelt (F,S)

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
TB	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-789 -A West Island - Site Strategy

County: Sacramento

CHART: 18661 Sacramento & San Joaquin River

Latitude  
38 02 N

Longitude  
121 49 W

**SITE LOCATION:** boundaries, landmarks, area to locate and delimit the site

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Aircraft beware of overhead power wires.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Primary concern is oil spread to interior channels of west part of island and oiling of interior marsh and marshes of west tip and margins.

### SITE STRATEGIES

#### Strategy 2-789.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude oil from entering interior island marshes and from penetrating marshes along western tip.

#### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 4000' 6x6+ exclusion boom along the northwest side of West Island from an anchorage point about 200' west of western tip.

From that same anchorage deploy 500 ft 6x6+ boom along the south western tip. Ensure a tidal seal at shorefall of boom ends.

Anchor a deflection peak in the boom across the mouth of the slough and back that with sorbent.

#### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-789.1	4500			11/25lb/danforths			4/4		Bboat: very shallow draft	2 WATER / 4	frequent checks	5

### LOGISTICS

#### **DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

Access by water only from the San Joaquin River. Launch across the river at Antioch.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
None. North bank across channel has good levee road.

#### **WATER LOGISTICS:**

Access limitations: depth, obstructions: SHALLOW AND OBSTRUCTIONS

Boat Launching, Loading, Docking Boat launching is available from south shore at Antioch or at north corner of Sherman Lake  
and Services Available: public ramp.

#### **FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:**

Good staging/deployment site to south is Antioch Marina. To the north, the Lower Sherman Island Wildlife Area Launch ramp is an excellent staging/deployment area. Limited facilities, including some camping, are available there. Full facilities are available at Antioch.

**COMMUNICATIONS LIMITATIONS / PROBLEMS:** No Problems Radio Pager Cell phone

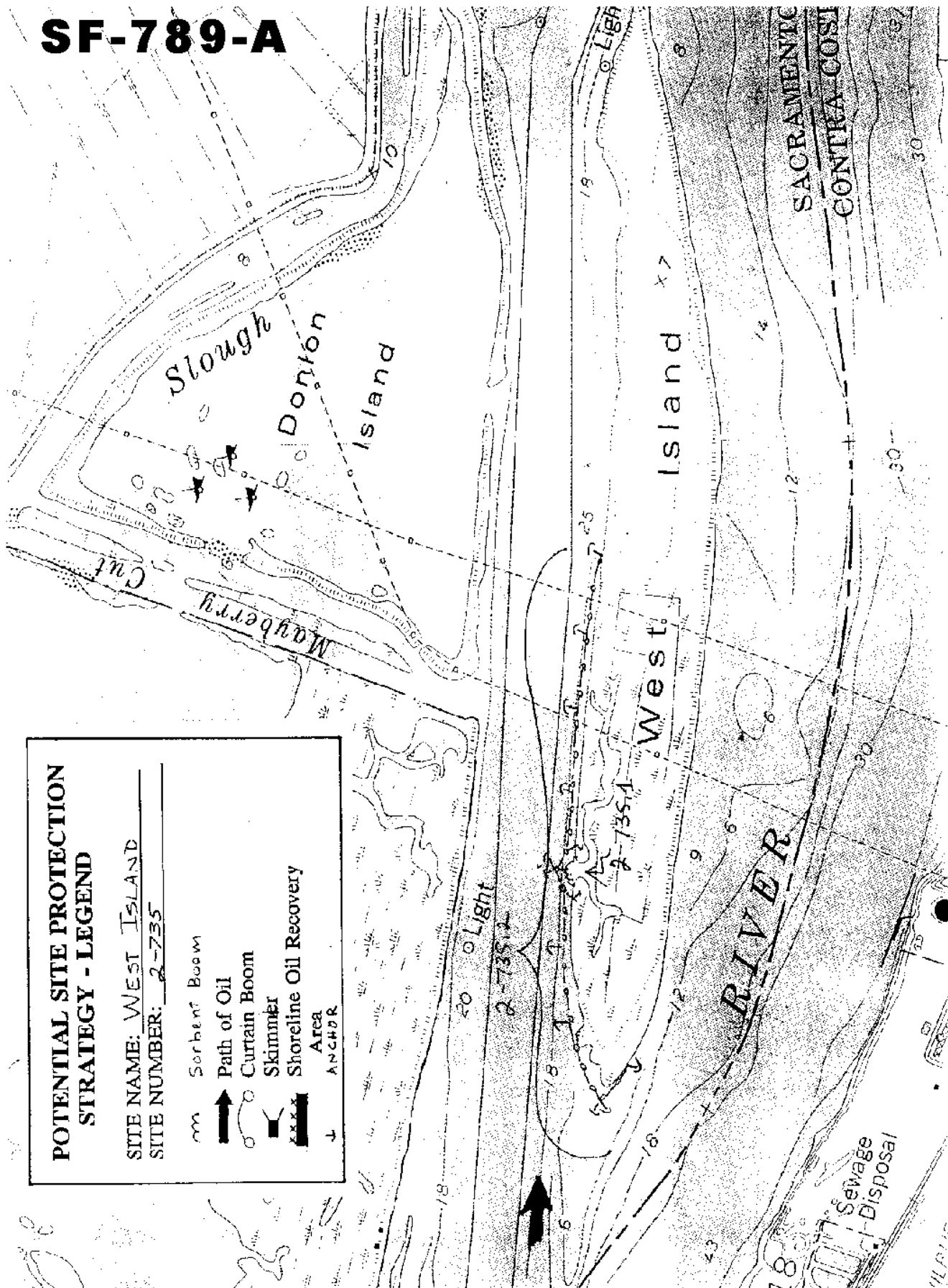
#### **ADDITIONAL COMMENTS**

**SF-789-A**

**POTENTIAL SITE PROTECTION  
STRATEGY - LEGEND**

SITE NAME: WEST ISLAND  
SITE NUMBER: 2-735

- m Sorbent Boom
- ↑ Path of Oil
- Curtain Boom
- ⌋ Skimmer
- xxxx Shoreline Oil Recovery
- ↓ Area ANCHOR



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# Three Mile Slough - San Joaquin River - Site Summary

2-790 -B

County: Sacramento  
USGS: Jersey Island

GRP: Latitude 38 06.5 N Longitude 121 41.2 W  
OSPR Map: Last ACP Update 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

This Slough is about 3.5 mile long from its mouth on the Sacramento River to its mouth on the San Joaquin River. Site also includes the westerly end of Sevenmile Slough. This swift flowing channel is ripped on most of its steep banks. There are pockets of riparian vegetation. Brannon Island State Park borders its northwestern edge. There are pockets of emergent growth along its length, particularly in the Sevenmile Slough channel at the Park. This is a key control point to prevent oil spread from one side of the Delta to the other.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

This is a key site in containing the spread of oil. There are significant resource here all year but overwhelming concern is to prevent oil movement between Sacramento and San Joaquin River systems.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

Riparian and wetland habitat is prominent in Brannon Island State recreation Area. This Slough is also a key location for habitats in general since it permits flow (and spread of oil) between central and northwest Delta.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

Riverine bird life here is typical and unremarkable for the area. Greater sandhill cranes (CT) winter in the nearby interior of Sherman Island.

Emergent vegetation is spawning habitat for Delta smelt (F/CT), and their fry are commonly present in moderate to high densities.

This waterway is also within the zone of highest concern for winter-run chinook salmon (F/CE) smolts from September through May.

Sensitive plant species found here include Suisun marsh aster, Delta tule pea, Mason's lilaeopsis (all F/CSC), and Antioch dunes evening primrose (F/CE).

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
TB	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
TL	Ron Breen	CA Dept Parks & Recreation	(916) 445-7373	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
BT	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
O	Robert Clark	North Delta Water Agency	(916) 446-0197	

# 2-790 -B Three Mile Slough - San Joaquin River - Site Strategy

County: Sacramento

CHART: 18661 Sacramento & San Joaquin River

Latitude  
38 06.5 N

Longitude  
121 41.2 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This Slough is about 3.5 mile long from its mouth on the Sacramento River to its mouth on the San Joaquin River. Site also includes the westerly end of Sevenmile Slough.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Steep eroded banks and areas of thick vegetation. Narrow road and narrow shoulders creates a hazardous situation. Traffic control should be implemented at this site.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The big concern here is oil movement from San Joaquin to Sacramento: there is a big cross-flow which this strategy attempts to confront by exclusion and collection.

## SITE STRATEGIES

### Strategy 2-790.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

For oil threats from San Joaquin River side, stop oil from entering slough and spreading to Sacramento River side.

### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

1. Deploy 2000'8X8 exclusion boom across the San Joaquin River mouth of 3-mile Slough. Anchor in a shallow chevron configuration to encourage oil to slide past the mouth.
2. Establish an SBS skimming operation near the mouth.
3. Backup the Shore side Skimming System with collection boom(s) (3000' 8X8+) diagonally across the slough to favorable collection points for land-based skimming.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-790.1	5000			8/50lb/danforths + chain + line		4/1	SSS	1	1/1	14ON WATER 5	2	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

This site is easily accessible from either Sacramento or San Joaquin Rivers since it is a major cross link. Also, the boat ramp at Brannon Island State Park is on the Slough. Levee Roads and Hwy 160 provide vehicle access: Sherman Island Road is an all weather/all traffic paved road; Twitchell Island levee roads are private (DWR).

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
ALL WEATHER/TRAFFIC

### WATER LOGISTICS:

Access limitations: depth, obstructions: GENERALLY VERY GOOD WATER  
Boat Launching, Loading, Docking Launching facilities available at Brannan Island State Recreational Area.  
and Services Available:

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Staging area available on river side and slough side at Brannan Island Recreational Area. Facilities including restrooms, electricity, and phone available.

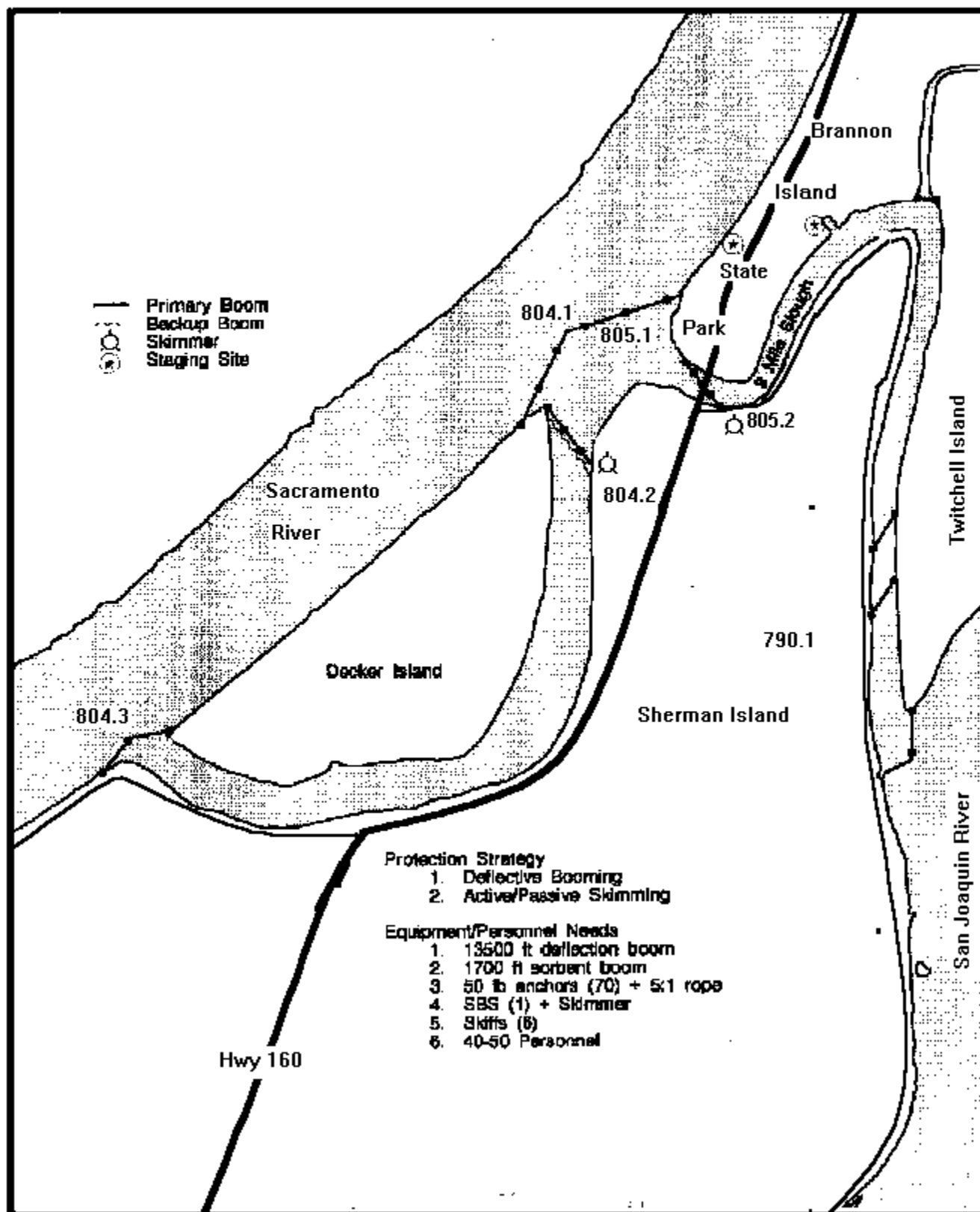
**COMMUNICATIONS LIMITATIONS / PROBLEMS:** No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# Protective Strategies

## Threemile Slough at San Joaquin River

### SF-790-A



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